Digital Opportunity Plan

State of Montana

Montana Broadband Office

Montana Department of Administration

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1 Executive summary

Broadband access provides a gateway to innumerable services and opportunities, from education to healthcare to remote work and connecting with people worldwide. However, Montana has faced significant challenges regarding high-speed internet availability, affordability, and adoption. To close Montana's digital divide, the Montana Broadband Office has created a Digital Opportunity Plan, which addresses barriers in four main areas: broadband availability, service affordability, device access, and digital skills. By pursuing strategic initiatives to overcome these obstacles, Montana can encourage broadband adoption and provide all of its residents—particularly covered populations, including tribal members—with access to the myriad benefits of high-speed internet.

To fully understand the depth and causes of its digital divide, Montana conducted stakeholder outreach and inventoried the assets available to address barriers to digital opportunity. These efforts allowed the state to identify gaps and potential focus areas.

The state's stakeholder engagement process, detailed in Section 4, allowed Montana to engage with its key constituents—including state agencies and institutions, community leaders, CAIs, and members of covered populations—to understand the obstacles they face and what they value most in terms of broadband access.

The asset inventory in Section 3.1 lays out the various resources, programs, and strategies that currently exist in Montana. Some of these are available to all Montanans, and others are designed to support one or more covered populations. Each resource, program and strategy has explicitly identified which covered populations they specifically support.

Through stakeholder engagement and the asset inventory, Montana identified gaps that the Digital Opportunity Plan should fill, mainly related to designing formal efforts to bring adequate broadband to the unserved and underserved, prioritizing CAIs as sources of broadband and device access, and making internet service more affordable. These barriers to digital opportunity are outlined in Section 3.2, which establishes a baseline for internet service and device accessibility and affordability.

To best serve Montanans through expanded access to affordable internet, Montana designed implementation strategies that expand existing programs and establish new initiatives. Section 5 introduces ten implementation strategies that are organized to address barriers to broadband adoption related to four key areas: broadband availability, service affordability, device access, and digital skills. The implementation plan outlines the associated barriers and gaps these strategies address, estimated timelines, key activities, goals, and measurements.

The evaluation metrics in Section 5 are tied to Section 2.3, which details measurable objectives that advance five topics: broadband availability and affordability, online accessibility and inclusivity, digital skills, online privacy and cybersecurity, and device availability and affordability. The measurable objectives in Section 2.3 support existing and planned efforts of the state related to the economy, workforce development, education, healthcare, civic and social engagement, and the delivery of essential services, which are outlined in Section 2.2. There is at

least one metric by covered population for each sub requirement of Statutory Requirement 2 per NTIA's guidance. The Digital Opportunity Plan's initiatives will bolster Montana's broader goals of enhanced service and opportunity for its citizens.

Montana's Digital Opportunity Plan will guide the state's efforts to narrow the digital divide and provide all Montanans with affordable high-speed broadband, adequate access to devices, and the digital skills necessary to access the internet and its many services.

2 Introduction and vision for digital opportunity

2.1 Vision

The Montana Broadband Office's vision is to close the digital divide in support of Montana's economic, workforce, health, and educational goals by ensuring reliable, affordable internet access for all Montanans. Given how much of the state will have broadband access for the first time because of private, state, and federal investment over the next several years, a priority aim for Montana is to pair broadband deployment with digital opportunity efforts. This strategy will maximize the impact of new broadband service across the state. Montana has prioritized digital opportunity in its approach to improving broadband access, factoring in affordability, access to devices, and digital skills to help close the internet adoption gap across its covered populations.

As part of its broadband strategy, Montana is developing programs and partnerships that address core factors impacting digital participation for Montanans. Searching for and responding to a job ad, communicating with a child's teacher, and accessing government services are all examples of interactions that are easily executed online in communities with reliable and affordable broadband access. Rural communities, representing ~61 percent of Montana's population, are further removed from access to in-person services and are also less likely to have sufficient internet access, potentially keeping them cut off from basic services and information.[1] Montana has made it a priority to offer electronic options for accessing government services via eGovernment, one of the state of Montana's information technology goals and major strategic initiatives, through which 62 different entities, including state agencies, organizations, universities, and local governments offer more than 400 online services to benefit Montana's citizens. Broadband deployment will further the state's IT strategic goals, and its workforce, educational, healthcare, and economic goals.[2]

The Montana Broadband Office (MBO), located within the state of Montana's Department of Administration (DOA), has the mandate to act as the administering entity for the state's broadband infrastructure deployment program, ensuring broadband access, adoption, and implementation for all populations within Montana.[3] The MBO is building a broadband program that will reach unserved and underserved locations and narrow the digital divide, giving all Montana residents the information technology capacity needed for full participation in our society, democracy, and economy.

[1] Digital Equity Act Population Viewer, Census, https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=a0013a9dcbb9419e855f563d78e892ef
[2] Commerce First To Meet Governor Gianforte's Digital Challenge, Governor's Office, https://news.mt.gov/Governors-Office/Commerce_First_To_Meet_Governor_Gianfortes_Digital_Challenge
[3] ConnectMT, Department of Administration, https://connectmt.mt.gov/; Montana House Bill 632, https://leg.mt.gov/bills/2021/billpdf/HB0632.pdf

Covered populations

The main objective of this Digital Opportunity Plan is to close the digital divide for covered populations[4], which include:

a. Individuals who live in covered households, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census
b. Aging individuals
c. Incarcerated individuals other than individuals who are incarcerated in a Federal correctional facility.
d. Veterans
e. Individuals with disabilities
f. Individuals with a language barrier, including individuals who are English learners; and/or have low levels of literacy.
g. Individuals who are members of a racial or ethnic minority group
h. Individuals who primarily reside in a rural area.

Covered populations make up 83.3 percent of Montana's population, with individuals primarily residing in a rural area accounting for nearly two-thirds of the state's citizens.[5]

[4] As outlined by NTIA, as required by the BEAD Five-Year Action Plan and Digital Equity Plan
[5] Digital Equity Act Population Viewer, Census, https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=a0013a9dcbb9419e855f563d78e892ef

2.2 Alignment with existing efforts to improve outcomes

2.2.1 Montana Broadband Office governance

The Montana Broadband Office's governance model will facilitate the integration of the state's broadband efforts. A brief overview of the key entities' roles can be found below:

Montana's Broadband Office (MBO)

The MBO will conduct research and data collection to build the Statewide Broadband Map with input from Internet Service Providers (ISPs); establish and administer the broadband infrastructure deployment program, distributing grant funding to ISPs to increase broadband access; monitor projects on an ongoing basis to ensure that sub-recipients are compliant with the use of grant funds and all pass-through requirements, and engage a diverse set of stakeholders to ensure the broadband program will meet the needs of all Montanans.

The State Legislature

The MBO was created in 2021 by Senate Bill 297 and House Bill 632. Senate Bill 297 (the ConnectMT Act) created the state's broadband infrastructure deployment program; House Bill 632 appropriated $275 million in American Rescue Plan Act (ARPA) funds for state broadband grants and created a nine-member Communications Advisory Commission (CAC) to review proposals and make recommendations to the Governor.

Senate Bill 297 provides that Montana "shall establish the broadband infrastructure deployment program and shall administer and act as the fiscal agent for the program and is responsible for receiving and reviewing responsive proposals and awarding contracts after review and receiving the governor's final approval."[6]

During the 68th legislative session, Senate Bill 531 revised the role of the Communications Advisory Commission in supporting broadband efforts in the state and aligned Montana's broadband service availability definitions and funding guidelines to BEAD requirements.[7] Also, during the 68th legislative session, a shift of $44,148,748 of 602 funds to the ConnectMT program was passed by an appropriation change.[8] Accordingly, total funding obligated for grant awards increased from $266 million to $310 million.

Other Montana government departments

Several additional state government departments will provide information to the Broadband Office to support broadband deployment and further state goals in other areas (e.g., economic, workforce, educational, and health). Sections 2.2.1 through 2.2.5 below detail how the Montana Broadband Office will collaborate with other state government departments to achieve the broader goals for the state of Montana.

[6] Montana Senate Bill 297, https://leg.mt.gov/bills/2021/billpdf/SB0297.pdf
[7] Montana Senate Bill 531. https://leg.mt.gov/bills/2023/billpdf/SB0531.pdf
[8] ConnectMT Broadband Resources. Funding. https://connectmt.mt.gov/ARPA/Funding

2.2.2 Overview of the Digital Opportunity Plan's alignment with existing goals

The digital divide cannot be closed without affordable, accessible high-speed broadband, the proper devices to navigate the internet, and adequate digital skills and cyber-security, which is why the Digital Opportunity Plan has developed the following goals:

- **Broadband availability and affordability**: Ensure all Montana residents have access to affordable internet in their homes, schools, libraries, and businesses, irrespective of their income level.
- **Online accessibility and inclusivity**: Reduce the digital divide among all Montana residents by increasing broadband adoption by covered populations and increasing access to online resources for all residents.
- **Digital skills**: Build digital skills to enhance broadband use through programs and partnerships with community stakeholders.
- **Device availability and affordability**: Reduce the digital divide among Montana residents by ensuring widespread access to internet-capable devices.
- **Online privacy and cyber-security**: Ensure all Montana residents have access to high-speed internet that meets online privacy and cybersecurity standards.

Achieving Montana's vision for digital opportunity related to the focus areas listed above will support and advance several of Montana's broader existing and planned efforts and goals related to economic and workforce development, education, health, civic and social engagement, and the delivery of other essential services.

Exhibit 1 below provides a summary of how the Digital Opportunity Plan's goals are aligned with the broader initiatives for the state of Montana. Sections 2.2.3-2.2.7 provide additional detail regarding many of the state's key initiatives and outline the Digital Opportunity Plan's focus areas and goals that support and align with Montana's broader efforts.

Exhibit 1: Summary of the state of Montana's key initiatives' alignment with the Digital Opportunity Plan's goals

State initiatives	Broadband availability and affordability	Online accessibility and inclusivity	Digital skills	Device availability and affordability	Online privacy and cyber-security
Come Home Montana	✓				
Montana Registered Apprenticeship Program	✓				
Accelerate Montana	✓		✓		
Montana Comeback Plan	✓	✓	✓	✓	
Montana Board of Public Education Strategic Plan 2022-2023	✓	✓	✓	✓	
Montana School for the Deaf and Blind Education Program Overview	✓	✓		✓	
Montana Office of Public Instruction Initiatives	✓			✓	

Montana State Rural Health Plan	✓	✓	✓	✓	✓
Montana Department of Public Health and Human Services	✓	✓		✓	✓
Secretary of State Biennium 2023-2025		✓		✓	
Montana Fish, Wildlife, and Parks Goals		✓			
Governor Gianforte's Digital First Challenge	✓	✓	✓	✓	
Department of Military Affairs	✓	✓	✓	✓	
Montana Department of Livestock Goals and Objectives	✓	✓			

2.2.3 Economic and workforce development

Montana's strategies to bolster its economy and develop its workforce are largely dependent on, and will be advanced by, increased access to broadband and closing the digital divide. Resources to build skills, find jobs and conduct business are increasingly located online. Many state employees are unable to access teleworking opportunities given the lack of high-speed internet.

In Exhibit 2 below, the State has outlined how the measurable objectives in section 2.3 will address Montana's economic and workforce development goals.

Exhibit 2: Objectives supporting economic and workforce development goals

KPIs supporting economic and workforce development goals	Covered population included	How KPI will support goals
Percent of individuals by each covered population that are confident in their computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	a, b, c, d, e, f, g, h	For individuals to participate in the changing economic landscape in Montana, increased digital literacy will be critical for workers to succeed.
Percent of unserved and underserved locations	a, b, c, d, e, f, g, h	For individuals to successful take advantage of remote work opportunities in Montana, high speed broadband internet throughout the state is necessary for individuals to realistically be able to move to Montana.

Adequate broadband is vital to a thriving economy and workforce, and the MBO's goal of closing the digital divide by making broadband accessible and affordable will bolster Montana's short- and long-term plans for its economy and workforce, as detailed below.

Come Home Montana[9]

In 2021, Governor Gianforte announced Come Home Montana, a state-wide effort to encourage Montanans to take advantage of remote work opportunities and return home to Montana from other states. Affordable access to high-speed internet is essential to successfully working remotely, which was referenced in a statement from the governor's office: "To bridge the digital divide and make working remotely more accessible than ever, the administration is in the early stages of deploying $275 million of [ARPA] funds for broadband expansion. In addition to highlighting opportunities for remote work and employment, the campaign highlights the value of a Montana education." Note that the allocation of funding for broadband expansion grants was later increased to $310 million during the 2023 legislative session.

The $310 million is being allocated by the state of Montana using funds from the American Rescue Plan Act for the "expansion of broadband internet access to Montana's regions and locales that remain unserved or underserved. The Department of Administration has established ConnectMT to oversee the operation of the award process," as the funds will be allocated "via competitive allocation awards to applicants who commit at a minimum of 20 percent of the proposed project's funds cost and who also commit to deploying enhanced and improved internet communications in Montana."[10]

The implementation of both the BEAD Five-Year Action Plan, Initial Proposal and Digital Opportunity Plans will also create jobs to build and support broadband infrastructure and supporting programs, which may incentivize Montanans to return to live and work in the state, helping to fill labor gaps needed for broadband deployment and ongoing implementation.

Montana Registered Apprenticeship Program[11]

Governor Gianforte has prioritized growing the Montana Registered Apprenticeship Program, a key workforce development initiative that has greatly accelerated over the last year and currently has more participants than the previous three years combined. The program provides paid, on-the-job training that teaches specific and technical job skills unique to participating employers. Upon completion, participants are conferred a Montana Registered Apprenticeship Program completion certificate, which is recognized in all 50 states.

The program was designed to create a skilled labor force to take advantage of Montana's employment opportunities. Around 14,000 students graduate from high school in Montana every year, 6,000 of whom go directly to work without meaningful credentials that could help them secure skilled, well-paying positions. To support those students, the state developed Montana Registered Apprenticeships, which pairs students with employers, provides them paid, on-the-job training, and positions them to attain gainful employment. This effort is reimagining high school for nontraditional students who would likely not attend college upon graduation.

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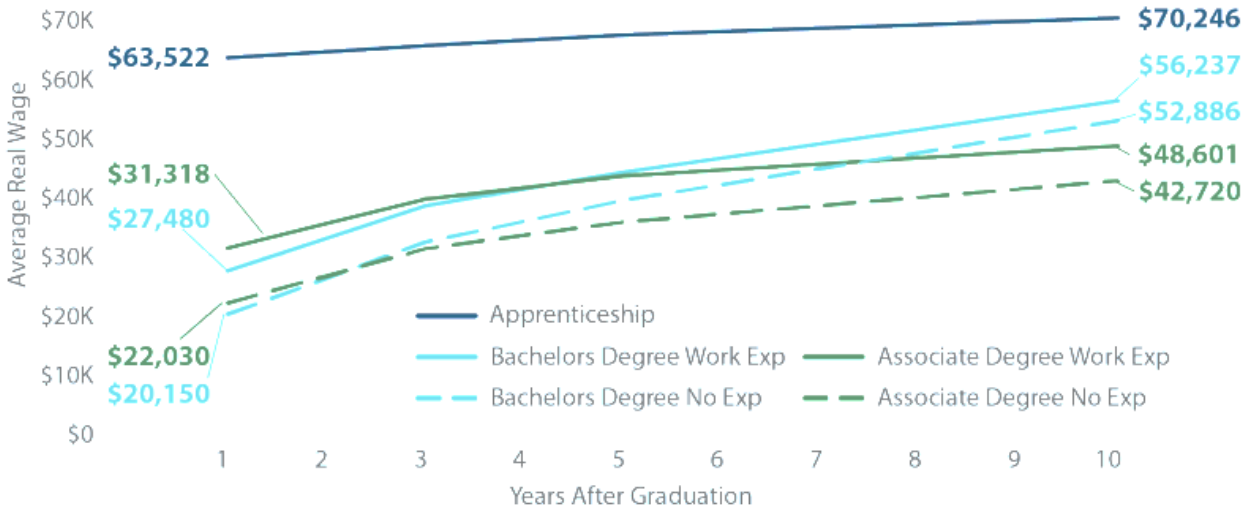
[9] Gov. Gianforte Launches Come Home Montana Campaign, Governor's Office, https://news.mt.gov/Governors-Office/gov-gianforte-launches-come-home-montana-campaign
[10] ConnectMT, ARPA Broadband Infrastructure, https://commerce.mt.gov/_shared/ARPA/docs/Communications/20211118/ConnectMTApplicationSubmittable.pdf
[11] Montana Registered Apprenticeship, Department of Labor and Industry, https://apprenticeship.mt.gov/

Pilot programs have been developed for construction, manufacturing, healthcare, technology, restaurants, and hospitality. [12] Completing this program translates into significant wage increases—according to the 2022 Montana Labor Day Report, those who complete the Registered Apprenticeship Program earn wages higher than those who graduate with associate's or bachelor's degrees (Exhibit 3).

Exhibit 3: 2022 Montana Labor Day Report ten-year wages by work experience[13]



To continue expanding this program, the Montana Broadband Office may explore opportunities for students to participate in apprenticeships to learn how to deploy broadband infrastructure and provide ongoing technical support as high-speed internet is expanded throughout Montana in accordance with the BEAD Five-Year Action Plan and Digital Opportunity plans. This can fill labor gaps in the market and help Montanans take advantage of jobs that pay well in the state.

To learn about and enroll in the program, students use an online portal, highlighting the importance of a digitally connected Montana.

Accelerate Montana[14]

Using a skills-focused hiring process, Accelerate Montana helps organizations identify their hiring needs while offering them a pool of qualified candidates. The organization is partnering with employers to build programs based on their needs and the needs of their employees. This public-private partnership provides Rapid Training courses, which can be taken in person,

[12] Interview with Workforce Services Division, Montana Department of Labor & Industry, October 31, 2022
[13] 2022 Montana Labor Day Report, Montana Department of Labor and Industry, https://lmi.mt.gov/_docs/Publications/LMI-Pubs/Labor-Market-Publications/LDR20221.pdf; Data source: MTDLI, OCHE, RMC, CC, UP, and apprenticeship graduate data wage match. Wages reflect average real wages reported in 2021 dollars using the CPI-U. Apprenticeship includes all degree types. Work experience defined as working at least 2 quarters per year in the 5 years prior to graduation. All apprenticeship completers have work experiences.
[14] AccelerateMT, University of Montana, https://www.acceleratemt.com/rapid-training-program

online, or hybrid through various Montana colleges. In February 2022, Governor Gianforte announced a $6 million investment in Accelerate Montana to "establish a series of rapid retraining and upskilling programs that will train up to 5,000 Montanans in sectors such as construction, health care, manufacturing, and infrastructure." The Governor's office added that "Accelerate Montana will jump-start the programs by partnering with high schools and private, public, and tribal colleges across the state to develop or adapt trainings to meet the needs for skilled positions across priority industries in Montana."[15]

As the BEAD Five-Year Action Plan, Initial Proposal and Digital Opportunity plans are implemented, there may be opportunities for Accelerate Montana to provide rapid upskilling to residents interested in filling the labor gap created by the expansion of broadband infrastructure—particularly given the recent investment in upskilling Montanans for construction and infrastructure positions—and the administration of ongoing support.

In addition, Accelerate Montana's upskilling efforts could be used to build potential employees' digital skills to broaden their job opportunities and increase their earning potential. The state of Oklahoma, a National Governors Association Workforce Innovation Network grantee, used data to illustrate how digital skills can meaningfully increase earning potential. "By matching an occupational digital skill scores matrix developed by the Brookings Institution with occupational wage data produced by the U.S. Bureau of Labor Statistics and long-term occupational projections funded by the U.S. Department of Labor, the Oklahoma team found almost three-quarters of current jobs in [Oklahoma] require at least a medium level of digital skills, and that each additional point in a digital score, on a scale of 0-100, is associated with an extra $781 in annual earnings."[16]

Montana Comeback Plan[17]

In the wake of the pandemic, Governor Gianforte developed the Montana Comeback Plan to reenergize Montana's economy.

The Governor's plan acknowledges the promise of the technology sector and the power of widespread, high-speed internet access. "The high-tech sector, which now exceeds $2 billion per year in revenue in Montana, is our fastest growing industry and creates jobs that pay double the state average." The broadband infrastructure buildout and subsequent support and service detailed in the BEAD Five-Year Action Plan could create a considerable number of jobs for the state.

The plan also notes, "With broadband Internet, tech businesses can be in any Montana community, and Montanans can return home, bringing remote work jobs with them to revitalize

[15] Gov. Gianforte Announces $6 Million Investment in Rapid Workforce Training, State of Montana Newsroom, February 15, 2022, https://news.mt.gov/Governors-Office/Gov_Gianforte_Announces_6_Million_Investment_in_Rapid_Workforce_Training
[16] Lessons Learned In Workforce Innovation: How Six States Are Planning To Advance Digital Skills For Equitable Economic Participation, National Governors Association, https://www.nga.org/publications/lessons-learned-in-workforce-innovation-how-six-states-are-planning-to-advance-digital-skills-for-equitable-economic-participation/
[17] Montana Come Back Plan, Greg Gianforte For Governor, https://gregformontana.com/wp-content/uploads/2020/08/Montana-Come-Back-Plan.pdf

our rural communities. We should be encouraging high tech to complement our other strong Montana industries and expanding rural broadband to enable it."

Montana's challenges, particularly in rural populations, are referenced: "Montana lags other states in access to broadband … one in three Montanans do not have access to broadband, which is three times the national average. The digital divide is even greater in our rural communities where three in five Montanans do not have access to broadband."

Additionally, the increased reliance on broadband for work, healthcare, and education is acknowledged: "As a result of the coronavirus crisis, Montanans are increasingly teleworking, patients are relying on telemedicine to consult with their doctors remotely, and students are studying and taking classes online—all making the lack of access across our state more pronounced."

The Comeback Plan plainly states that bringing reliable broadband to all of Montana is a crucial, key priority for the state, as it's "time we give rural Montana access to the same opportunities the rest of the state has. We have to bring reliable broadband to all our Montana communities. Deploying broadband to our rural areas is foundational for our new and evolving economy, whether it's agriculture or high-tech."

As outlined clearly in the Montana Comeback Plan, many of the state's overarching priorities—skilled workforce development and remote access to education, work, and healthcare—rely on the widespread availability of high-speed internet.

2.2.4 Education[18]

Given Montana's rurality and low population density, digital instruction is a powerful tool for providing students with the educational opportunities they need. In many places, there is a dearth of instructors trained to teach the classes required or desired by students. By improving broadband access, students in remote areas can use online tools to take classes they would not otherwise be able to access. According to the Office of Commissioner of Higher Education, one in five courses available are now offered online or in a hybrid model.[19] Adequate, affordable internet and device access will expand students' ability to pursue education opportunities that fit their needs.

In Exhibit 4 below, the State has outlined how the measurable objectives in section 2.3 will address Montana's education goals.

Exhibit 4: Objectives supporting education goals

KPIs supporting education goals	Covered population included	How KPI will support goals
Percent of individuals by each covered population that are confident in their computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	a, b, c, d, e, f, g, h	Digital literacy is a critical component of various state education goals as described below, and measuring individuals' reported ability to perform computer skills will help determine whether digital literacy training is succeeding

[18] The Montana board of Education oversees K-12 public education in the state.
[19] Office of Commissioner of Higher Education, Interview, November 2, 2022

KPIs supporting education goals	Covered population included	How KPI will support goals
Percent of individuals by each covered population that are confident in knowing what information is safe to share online	a, b, c, d, e, f, g, h	Digital literacy is a critical component of various state education goals as described below, and measuring individuals' reported ability to know what information is safe to share will help determine whether digital literacy training is succeeding

Montana Board of Public Education Strategic Plan 2022-2023[20]

The main objective of the state of Montana Board of Public Education's Strategic Plan is to collaborate with the Montana Digital Academy, Montana's statewide online program, to support instruction for students in partnership with public schools.

The Montana Digital Academy[21] allows students to access their classes from any place at any time, greatly expanding learning opportunities and increasing "access to Advanced Placement® and specialized elective courses, especially for our rural schools."

The Digital Opportunity Plan's priorities related to broadband and device availability and affordability, online accessibility and inclusivity, digital skills, and online privacy and cybersecurity will support the Academy's agenda, broadening learning opportunities for Montana's students.

Montana School for the Deaf and Blind education program overview[22]

Many students who attend and use resources provided by the Montana School for the Deaf and Blind (MSDB) sit at the intersection of two of the most vulnerable covered populations, residing in rural areas and living with disabilities like vision or hearing impairments.

Access to the internet and specialized devices and software are essential for these students to learn and communicate, so lack of access and affordability are significant issues. MSDB's program overview prioritizes the availability of "tools, such as amplification technology and communication strategies," and "access to technology depending on individual student needs."

MSDB needs adequate broadband to broadcast its lessons to students who live in remote areas. According to the school's administrator, MSDB's visually impaired students rely on devices with software that can translate the written word into sound to help them navigate lessons on their device screens. Additionally, students with hearing impairments meet on Zoom to allow them to sign on screen, and that requires high-speed internet. Low broadband speeds result in video lags, which can cause students to miss 20-30 percent of instruction, impeding their ability to

[20] Strategic Plan 2021-2022, Montana Board of Public Education, https://bpe.mt.gov/Home/Approved-BPE-Strategic-Plan-2021.pdf
[21] Montana Digital Academy, State of Montana, http://montanadigitalacademy.org/
[22] Montana School for the Deaf and Blind, https://www.msdbmustangs.org/education/education-program-overview/

participate fully in their lessons. Through ARPA allocations, MSDB should receive high-speed internet via fiber and be considered served by NTIA standards before 2025.[23]

The Digital Opportunity Plan's goal to increase broadband and device availability and affordability will directly support MSDB's education goals by enabling students to participate fully in their classes and by expanding the school's ability to train additional instructors around the state to increase MSDB's impact.

Montana Office of Public Instruction initiatives[24]

Several Montana Office of Public Instruction's (OPI) initiatives will be bolstered by the Digital Opportunity Plan, including increasing "family, student, and community engagement," which could be made more robust via digital engagement, as well as OPI's data modernization project.

OPI notes that, "the 2021 Legislature appropriated $13,475,248 in ESSER II and III funds to modernize data systems at the OPI."[25] In partnership with schools and other stakeholders, the OPI will simplify and improve data systems to reduce the number of data systems and processes, automate workflow, increase security, enhance the user experience, and leverage enhanced analytics. The project aims to improve student, educator, fiscal and digital data management.[26] One of the latest efforts involves launching PowerSchool, a student information system (SIS) solution and cloud-based software for K-12 education that centralizes all student data in a single, integrated platform, providing a view of student data trends and identifying instructional gaps.[27]

OPI is also keen to "expand industry, military, and post-secondary partnerships," which intersects with the Montana Registered Apprenticeship program that uses an online portal to connect prospective participants to potential sponsors.

Further, OPI's initiative to emphasize "STEM, career, and technical education (CTE), and workforce development, beginning in middle school" will require digital equipment and broadband access, both prioritized by the Digital Opportunity Plan.

OPI's STEM goals are underscored by First Lady Susan Gianforte's priority of "increasing opportunities for Montana kids to explore Science, Technology, Engineering and Math (STEM) education." She notes, "students who engage in STEM education learn how to solve complex problems, boost their self-confidence, and discover doors to greater opportunities."[28]

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[23] Montana School for the Deaf and Blind, Interview, October 28, 2022
[24] Initiatives, Montana Office of Public Instruction, https://opi.mt.gov/Portals/182/Superintendent-Docs-Images/OPIpercent20Initiatives.pdf?ver=2018-08-13-112844-533
[25] Data Systems Modernization Project, Montana Office of Public Instruction website, https://opi.mt.gov/data-systems-modernization
[26] Data Modernization Project Status and Overview, by Chris Sinrud and Zam Alidina, Montana Office of Public Instruction, August 2022, https://opi.mt.gov/Portals/182/Data%20Systems%20Modernization/OPI-DMS-Presentation%20-DTF.pdf?ver=2022-08-26-114710-717
[27] "Unlock Montana's PowerSchool Potential," PowerSchool website, https://www.powerschool.com/global/north-america/united-states/montana/
[28] Treasure State Foundation, https://treasurestatefoundation.org/our-initiatives/

The state's STEM, CTE, and workforce development initiatives can also help address the labor gap in the state's effort to build broadband infrastructure and provide necessary support services. By collaborating on programming, Montana can build a labor force with the skills needed to support these broadband efforts.

2.2.5 Health

The state of Montana encompasses extensive and sparsely populated land. Many residents live in remote areas, many hours from healthcare facilities. Making the trip for routine checkups can be both time-consuming and costly. For rural Montanans, in particular, telehealth may be key to making healthcare affordable and accessible.

Increasing the availability of affordable high-speed internet can support the state's telehealth goals, as highlighted in the Montana State Rural Health Plan and the Montana Department of Public Health and Human Services Strategic Plan.

In Exhibit 5 below, the State has outlined how the measurable objectives in section 2.3 will address Montana's healthcare goals.

Exhibit 5: Objectives supporting healthcare goals

KPIs supporting education goals	Covered population included	How KPI will support goals
Percent of individuals by each covered population who use at least two devices to connect to the internet at home or somewhere else	a, b, c, d, e, f, g, h	Individuals throughout Montana having access to several device options should enable the State to help realize its health goals, especially telehealth

Montana State Rural Health Plan[29]

The Montana State Rural Health Plan stresses the importance of telehealth access and use in serving Montana's largest covered population: rural individuals. The plan notes that, "much of Montana remains in a broadband desert. In many of these areas, internet connections that are not sufficient to maintain a live video call are common."

The goals of the Rural Health Plan include expanding telehealth for rural populations and veterans, encouraging providers and healthcare facilities to adopt and use telehealth, and increasing access to behavioral health telehealth services.

Individuals who live in rural areas may lack the time and resources necessary to travel long distances—sometimes several hours—to visit healthcare professionals, sometimes for ailments that could be addressed via a video call. By increasing the ease of access to telehealth, rural residents may feel encouraged to manage their health issues faster or more frequently, leading to better outcomes in the short- and long-term.

[29] Montana's Rural Health Plan 2021, Montana Department of Public Health and Human Services, https://dphhs.mt.gov/assets/qad/FlexGrantStateRuralHealthPlan.pdf

To access the myriad benefits of telehealth, it will be critical to support rural Montanans in building digital skills. For those who have never used video teleconferencing services like Zoom before, attending a virtual doctor appointment may be challenging and daunting. CAIs could play a helpful role in supporting rural Montanans by providing digital skills-building classes.

Montana Department of Public Health and Human Services[30]

The Montana Department of Public Health and Human Services (DPHHS) is prioritizing the continued expansion of telehealth services for behavioral health, primary care, and other health-related needs and recognizes telehealth's role in increasing access to timely, affordable, and effective health services.

Montana's extensive frontier and low population density means that residents—particularly in rural areas and on tribal reservations—face considerable barriers to accessing medical care. These geographic challenges impede residents' access to healthcare and to other essential services, including those offered by Child Protective Services (CPS) and the Office of Public Assistance (OPA). With adequate broadband and internet-capable devices, Montanans could access these services remotely, saving a great deal of time and resources, which could, in turn, encourage more frequent use.

The lack of broadband and cell service is also a challenge for state agency employees, preventing many state employees from working remotely. CPS representatives often lose connectivity when driving in Eastern Montana to conduct wellness checks, posing serious security risks. OPA employees face obstacles enrolling residents in programs like SNAP or Medicaid, and they may have to travel upwards of 100-150 miles to provide the support that could be easily offered online. The agencies overseen by DPHHS are under-resourced, lacking the technical equipment, such as signal boosters, hotspots, and tablets, necessary to perform their duties. Access to broadband and appropriate internet-capable devices would significantly improve these employees' ability to conduct their business. Further, given the sensitive nature of the information stored by and transferred to and from these agencies, the Digital Opportunity Plan's online privacy and cybersecurity goals will be critical to keeping privileged information safe and secure.

2.2.6 Civic and social engagement

People count on online platforms to connect with friends and family, explore their interests, and participate in their communities. Many of the state of Montana's civic and social engagement plans include using digital platforms to make access easier for residents, which can be supported by increased access to affordable broadband.

In Exhibit 6 below, the State has outlined how the measurable objectives in section 2.3 will address Montana's civic and social engagement goals.

[30] Montana Department of Public Health and Human Services, Interview, November 10, 2022

Exhibit 6: Objectives supporting civic and social engagement goals

KPIs supporting civic and social engagement goals	Covered population included	How KPI will support goals
Percent of individuals by each covered population that are confident in knowing what information is safe to share online	a, b, c, d, e, f, g, h	Individuals knowing what information is safe to share online should allow for better public discourse on civic and social engagement topics

Secretary of State Biennium 2023-2025[31]

Montana's Secretary of State has made the deployment and use of ElectMT, an updated election system, a key priority ahead of the next wave of elections. ElectMT will allow voters to verify that their ballots are received by election offices during local elections, and the election reporting systems will be tied into each other. As voting is central to civic engagement, implementing this new system will further enfranchise Montana's citizens.

The Digital Opportunity Plan's goals related to online privacy and cybersecurity, as well as online accessibility and inclusivity, can help make ElectMT successful and scalable.

Montana Department of Fish, Wildlife, and Parks goals[32]

Fishing, hunting, and spending time outdoors are central tenets of life in Montana. The Montana Department of Fish, Wildlife, and Parks has prioritized replacing its Automated Licensing System "to provide a comprehensive business and customer service portal for hunting, angling, and recreation opportunities." Hunters and fishers rely on affordable and accessible broadband and devices to access this updated system.

One of Montana's most prized assets is its pristine parks and outdoor attractions. As Montana's tourism industry continues to grow, the Montana Department of Fish, Wildlife, and Parks can use the internet to promote its many destinations, attracting tourists and their spending power to support the local economy.

2.2.7 Delivery of other essential services

The Digital Opportunity Plan's objectives of increasing the availability of and access to high-speed internet will support the state agencies' transition to online platforms, enable residents to take advantage of the agencies' online presence, and advance additional goals laid out in the plans and efforts detailed below.

In Exhibit 7 below, the State has outlined how the measurable objectives in section 2.3 will address Montana's civic and social engagement goals.

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[31] 2023-2025 Biennium, Montana Secretary of State, https://sosmt.gov/wp-admin/admin-ajax.php?juwpfisadmin=false&action=wpfd&task=file.download&wpfd_category_id=775&wpfd_file_id=48194&token=b0e72f88d5ec849828e7397b4a41626b&preview=1

[32] Goals and Objectives FY 2022-2023, Montana Fish, Wildlife & Parks Agency, https://fwp.mt.gov/aboutfwp/goals-and-objectives

Exhibit 7: Objectives supporting delivery of other essential services goals

KPIs supporting delivery of other essential services goals	Covered population included	How KPI will support goals
Broadband adoption rate by each covered population	a, b, c, d, e, f, g, h	For individuals to utilize Governor Gianforte's goal of Montana's agencies becoming 100% digitized and accessible to residents online, they will need high-speed internet. Broadband adoption will be critical to using these new online services

Governor Gianforte's Digital First Challenge[33]

In July 2022, Governor Gianforte issued the Digital First Challenge to all of Montana's state agencies to become 100 percent digitized and accessible to residents online. The Governor noted, "Modernizing state government is critical to better serving our customers, the people of Montana, and being better stewards of their hard-earned money. By adopting a culture of customer service across state agencies, we are changing the way state government does business. By transforming state government to digital, we'll better serve Montanans while also saving taxpayers millions along the way."

The Digital First Challenge will make services and resources available online for all Montanans, increasing accessibility, particularly to those who would otherwise travel long distances to access state services. Affordable, accessible high-speed internet will allow the state's residents to take advantage of this impactful initiative.

Montana Department of Military Affairs[34]

The Department of Military Affairs noted the importance and value of adequate broadband infrastructure and support as related to emergency and disaster relief in the state of Montana. During an interview conducted by the Montana Broadband Office, they noted that the lack of redundancies in the broadband infrastructure makes the state vulnerable before, during, and after disasters: "If one line goes down, everything is down." The inability to communicate quickly with Montana residents puts the state at a disadvantage in conveying warnings ahead of natural disasters and providing emergency response in the wake of those disasters.

The Department, which also helps veterans access benefits, noted that veterans, who are often older, lack adequate technology in their homes and the digital skills necessary to access resources online.

The Digital Opportunity Plan's initiatives related to expanding broadband availability and digital skills may offer noted benefits to several covered populations with whom the Department of Military Affairs often interfaces—veterans, individuals who live in rural areas, aging populations, and individuals living with disabilities.

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[33] Commerce First To Meet Governor Gianforte's Digital Challenge, Governor's Office, https://news.mt.gov/Governors-Office/Commerce_First_To_Meet_Governor_Gianfortes_Digital_Challenge

[34] Department of Military Affairs, Interview, October 26, 2022

Montana Department of Livestock goals and objectives[35]

Livestock is at the center of Montana's robust agriculture industry, and two of the Montana Department of Livestock's key goals are keeping "the livestock industry and public informed of industry programs and issues through timely and accurate public information and education and managing the enforcement of brands."

As the Department of Livestock notes, "starting with the time of the open range to the present, brands have been used as markings to identify livestock and have been a visual means of identification in showing ownership throughout history. Currently, 47,669 registered Montana Livestock Brands are maintained by the Brands Enforcement Division Brand Office." Digitizing this vast brand catalog and allowing online brand registration would make the process easier and more accessible.

[35] Goals and Objectives 2022-2023 Biennium, Montana Department of Livestock, https://liv.mt.gov/Goals-and-Objectives

2.3 Strategy and objectives

The importance and value of digital opportunity cannot be overstated. With the ubiquity of internet use, the lack of digital opportunity places people—many of whom are already vulnerable—at a significant disadvantage.

As illustrated in section 2.2, adequate access to broadband is required to achieve goals related to the economy, workforce development, education, health care, civic and social engagement, and the delivery of other essential services.

The digital divide cannot be closed without affordable, accessible high-speed broadband, the proper devices to access the internet, and adequate digital skills and security. For that reason, the Digital Opportunity Plan lays out plan objectives, baseline measurements tied to Key Performance Indicators (KPIs), and short-term and long-term goals[36] related to each of these areas, as described in Exhibit 8 below. For each key area, there is at least one KPI that applies to each covered population as described in section 2.1. Short-term and long-term goals will be further refined pending information from NTIA regarding award amounts and timelines.

Exhibit 8: Digital Opportunity Plan goals, strategies, and tracking

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase the availability of, and affordability of access to, fixed and wireless broadband technology	Percent of unserved locations (across the total population including Covered Populations)	22%	18%	0%	FCC National Broadband Map	Every 6 months	Chief Data Officer
	Percent of underserved locations (across the total population including Covered Populations)	10%	6%	0%	FCC National Broadband Map	Every 6 months	Chief Data Officer
	Percent of state and local incarceration facilities unserved or underserved	20%	16%	0%	FCC National Broadband Map	Every 6 months	Chief Data Officer
	Percent of un- and underserved CAIs	20%	16%	0%	FCC National Broadband map	Every 6 months	Chief Data Officer
	Percent of eligible households enrolled in the Affordable Connectivity Program (ACP) which promotes affordability of access to broadband and devices	28%	32%	58% (current highest ACP uptake across all states)	USAC data	Every 6 months	Program Coordinator
	Percent uptake of affordable plans in BEAD-funded areas	0%	32% (same as ACP	58% (same as ACP	ISP submissions	Every 6 months	Program Coordinator

[36] Short-term is 2 years and long-term is 5 years as determined by the MBO.

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
			uptake target)	uptake target)			
	Percent of aging individuals who are aware of internet subsidy programs, such as ACP or the Emergency Broadband Benefit (EBB), to help cover monthly internet costs for qualifying households	29%	33%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of veteran individuals who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	26%	30%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals with disabilities who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	36%	40%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of non-native English speakers who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	26%	30%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of racial or ethnic minorities who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	34%	38%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals who live in rural areas who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	30%	34%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	Percent of formerly incarcerated individuals who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	0%[37]	31%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals who live in covered households who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	0%[37]	31%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals who live on a reservation who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	29%	33%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
Increase the online accessibility and inclusivity of public resources and services	Percent of government services with online accessibility	0%[38]	25%	90%	Department of Administration	Every 6 months	Program Coordinator
	Broadband adoption rate among racial or ethnic minorities	61%	65%	81%	U.S. Census Data	Every 12 months	Census and Economic Information Center
	Broadband adoption rate among the aging population	58%	62%	81%	U.S. Census Data	Every 12 months	Census and Economic Information Center
	Broadband adoption rate among the veteran population	64%	68%	81%	U.S. Census Data	Every 12 months	Census and Economic Information Center
	Broadband adoption rate among the population with disabilities	55%	59%	81%	U.S. Census Data	Every 12 months	Census and Economic Information Center

[37] Baseline survey was not able to cut by this covered population; baseline will be fully established during next survey run.
[38] Baseline will be fully evaluated in exploration of all government services online accessibility during implementation.

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	Broadband adoption rate among households ≤ 150% of the federal poverty level	58%	62%	81%	U.S. Census Data	Every 12 months	Census and Economic Information Center
	Broadband adoption rate among non-native English speakers	56%	60%	81%	U.S. Census Data	Every 12 months	Census and Economic Information Center
	Broadband adoption rate among the rural population	58%	62%	81%	U.S. Census Data	Every 12 months	Census and Economic Information Center
	Broadband adoption rate among the formerly incarcerated population	0%	57%	81%	Survey of Montana residents	Every 2 years	Chief Data Officer
Increase digital literacy	Number of individuals in covered populations reached through new or expanded digital skills program	0	2,226[39]	8,905[40]	Summary from digital skills program subrecipients	Every 12 months	Program Coordinator
	Percent of aging individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	89%	91%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of veteran individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	91%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals with disabilities confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	87%	89%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of non-native English speakers confident in computer skills abilities, such as saving downloaded files,	83%	85%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

[39] Based on 0.25% of the total number of individuals that are part of a covered population
[40] Based on 1% of the total number of individuals that are part of a covered population

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	opening downloaded files and searching for information online						
	Percent of racial or ethnic minorities confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	91%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of rural individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	90%	92%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of formerly incarcerated individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	0%[37]	85%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals in covered households confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	0%[37]	85%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals who live on a reservation confident in computer skills abilities, such as saving downloaded files and searching for information online	87%	89%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
Increase the awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect	Percent of aging individuals confident in knowing what information is safe to share online	84%	86%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of veteran individuals confident in knowing what information is safe to share online	84%	86%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
to, an individual	Percent of individuals with disabilities confident in knowing what information is safe to share online	84%	86%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of non-native English speakers confident in knowing what information is safe to share online	91%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of racial or ethnic minorities confident in knowing what information is safe to share online	89%	91%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of rural individuals confident in knowing what information is safe to share online	90%	84%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of formerly incarcerated individuals confident in knowing what information is safe to share online	0%[37]	84%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals in covered households confident in knowing what information is safe to share online	0%[37]	84%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals who live on a reservation confident in knowing what information is safe to share online	85%	87%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
Increase the availability and affordability of computing devices and technical support for those devices	Percent of state agency need fulfilled (# of devices available/# of devices needed)	0%[41]	50%	100%	Assessment from agency leaders	Every 12 months	Program Coordinator
	Percent of community need fulfilled (# of devices available/# of devices needed)	0%	50%	90%	CAI directors	Every 6 months	Program Coordinator
	Percent of aging individuals who can afford and use at least two devices (among	93%	95%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

[41] Baseline will be determined during implementation of activities.

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else						
	Percent of veteran individuals who can afford and use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	94%	96%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals with disabilities who can afford and use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	94%	96%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of non-native English speakers who can afford and use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	96%	98%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of racial or ethnic minorities who can afford and use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	93%	95%	97%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of rural individuals who can afford and use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the	95%	97%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	internet at home or somewhere else						
	Percent of formerly incarcerated individuals who can afford and use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	0%[37]	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals in covered households who can afford and use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	0%[37]	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals who live on a reservation who can afford and use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	89%	91%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

3 Current state of digital opportunity: barriers and assets

3.1 Asset inventory

In the state of Montana, both public and private entities have made concerted efforts to bridge the digital divide. Montana has conducted a detailed review of available assets that are being used to advance digital opportunity, both through online research and interviews with the leaders of several state agencies.

The digital asset inventory is organized as follows:

- **Section 3.1.1**: Digital inclusion assets that serve covered populations.
- **Section 3.1.2**: Plans to advance digital opportunity instituted by municipalities, regions, and/or Tribes that also have a presence in the state.
- **Section 3.1.3**: Programs to advance digital opportunity instituted by municipalities, CAIs, and organizations across the state of Montana.
- **Section 3.1.4**: Assets that promote broadband adoption and are administered by non-government entities in the state of Montana.
- **Section 3.1.5**: Assets that promote broadband affordability and are administered by non-government entities in the state of Montana.

The purpose of the asset inventory below is simply to document the digital assets that exist in the state of Montana. The inclusion of an asset does not indicate an endorsement of the effort, nor does it represent an interest by the state to participate or support any given asset. For details on programs that the state will pursue, please see Section 5.

The following covered populations will be referenced by their respective letter in Exhibit 9-Exhibit 13 throughout this section.

a. Individuals who live in covered households, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census
b. Aging individuals
c. Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility.
d. Veterans
e. Individuals with disabilities
f. Individuals with a language barrier, including individuals who are English learners and/or have low levels of literacy.
g. Individuals who are members of a racial or ethnic minority group
h. Individuals who primarily reside in a rural area

3.1.1 Digital inclusion assets by covered population

In the state of Montana, there are a number of strategies, resources, plans, and programs that promote and enable digital inclusion of covered populations (see Exhibit 9).

Exhibit 9: Digital inclusion assets by covered population

Organization name	Asset name	Description	Covered population	Link
Dawson Community College	Gold Card Program	Program for seniors to use internet services and take classes provided by the community college at no extra cost	b	https://www.dawson.edu/file_download/4f007d4c-453d-40d6-a7d7-2a5219152ba1
Montana Registered Apprenticeship	MT Technology Apprenticeship Programs	Offers programs covering computer and office machine repair, computer user support, and computer programming	b, d, e, f, g, h	https://apprenticeship.mt.gov/
University of Montana	MonTECH Equipment Loans	MonTECH serves any Montanan with a disability, by loaning devices and equipment and teaching people how to use them	e	https://montech.ruralinstitute.umt.edu/equipment-loans-reuse/
Girl Scouts of Montana and Wyoming	Mobile STEM Learning Center	The Girl Scouts of Montana and Wyoming are planning to launch the Mobile STEM Learning Center to deliver engaging, hands-on curriculum options to girls in rural areas across Montana and Wyoming, especially those in economically disadvantaged and tribal communities	h	https://www.fairfieldsuntimes.com/news/state/girl-scouts-of-montana-and-wyoming-launching-mobile-stem-learning-center/article_8d5f256c-ed13-596f-9590-9955d073a94f.html
Pacific Northwest Rural Broadband Alliance	Co-op broadband	This non-profit, focused on building rural broadband service for communities that are unconnected or underserved, delivers internet to customers via rooftop-mounted wireless receivers which blanket the region in service	h	https://nwbroadbandalliance.org/
Yellowstone Fiber	Montana's first high-speed all-fiber internet network, and the state's first Open Access FTTH network	This nonprofit aims to provide fiber access to every address in the City of Bozeman and begin to extend the network deep into Gallatin County. This open-access Fiber to the Home (FTTH) network increases competition and allows customers to select the best service at the best price	a, b, c, d, e, f	https://www.yellowstonefiber.com/faqs/
HUD ConnectHome USA	FCC Lifeline Program	The Lifeline Program allows eligible consumers to receive a monthly benefit up to $9.25 towards phone or internet services (and up to $34.25 for those living on Tribal and Native lands)	g (Tribal)	https://www.lifelinesupport.org/get-started/
Disability Rights Montana	Assistive Technology	Disability Rights Montana can assist people with disabilities in obtaining assistive technology devices or services	e	https://disabilityrightsmt.org/wp-content/uploads/2020/07/2020-DRM-PAAT-Brochure.pdf
IcanConnect	IcanConnect	National program provides people with both significant vision and hearing loss with free equipment and training	e	https://www.icanconnect.org/
State of Montana	Tribal Computer Programming Boost	HB 644 established a scholarship program, administered by OPI and DLI, to support the development of	g (Tribal)	https://leg.mt.gov/bills/2021/billpdf/HB0644.pdf

Organization name	Asset name	Description	Covered population	Link
	Scholarship Program	computer programming courses at high schools located on Native American reservations in the state		
State of Montana	HB 219	HB 219 established a computer coding student training pilot grant program for tribal communities. Grant recipients included Code Girls United	g (Tribal)	https://leg.mt.gov/bills/2021/billpdf/HB0219.pdf
Code Girls United	Tribal computer coding pilot project	Code Girls United was awarded a $50,000 state contract, made possible by House Bill 219, to provide training and incentives to students in Native communities for computer coding and programming courses	g (Tribal)	https://www.greatfallstribune.com/story/news/tribal-news/2022/03/22/montana-nonprofit-code-girls-united-computer-programming-coding-tribal-communities/6534622500 7/
Soft Landing Missoula	Coding club	The nonprofit, which works with the local refugee and immigrant community, hosts a weekly coding club in the summer	a, e, f, g, h	https://missoulian.com/news/local/coding-club-soft-landing-kids-learn-computer-skills/article_58100409-ec87-5c65-8e8c-3474486b98d6.html
Blackfeet Manpower	Adult education	The organization provides job skills, including computer literacy, for members of the Blackfeet Tribe	g (Tribal)	https://blackfeetmanpower.com/adult-education/
Career Training Institute	Training services	The nonprofit provides employment and training services, such as computer skills training, for low-income individuals	a	https://ctihelena.org/about-us/
Montana State Library	Talking Book Library	Provides devices and content to Montanans with visual or learning disabilities.	g	https://msl.mt.gov/libraries/talking_book_library/
Montana Department of Corrections	Chromebooks for prisons	The Montana Department of Corrections has a few hundred Chromebooks for incarcerated individuals to use for learning purposes	c	Interview with Montana Department of Corrections

3.1.2 Existing digital opportunity plans

Exhibit 10 includes plans "instituted by municipalities, regions, and/or Tribes that also have a presence in the state," in accordance with the Digital Opportunity Plan Guidance.

An opportunity exists to develop and deploy additional, robust digital opportunity plans to better target and serve covered populations.

Exhibit 10: Existing digital opportunity plans

Organization name	Asset name	Description	Covered population	Link
Montana Office of Public Instruction	K-12 Digital Literacy and Computer	The purpose of the Digital Literacy and Computer Science (DLCS) guidelines is to provide schools with a framework to	a, e, f, g, h	https://opi.mt.gov/LinkClick.aspx?fileticket=DITR-OpK7jo%3D&portalid=182

Organization name	Asset name	Description	Covered population	Link
	Science Guidelines	prepare students for success in college and careers		
Treasure State Foundation	STEM Education	The Foundation is promoting and expanding access to STEM education to help students learn to solve complex problems and increase opportunities later in their educations and careers	a, e, f, g, h	https://treasurestatefoundation.org/our-initiatives/
Montana Department of Labor and Industry	Growth with Google Partnership	DLI is partnering with Google to provide statewide access to Google Career Certificates in Digital Skills. After earning the certificates, participants are connected with an employer consortium of 150+ companies	a, b, c, d, e, f, g, h	https://news.dli.mt.gov/News/2022/07/grow-with-google

Note that MBO is not aware of any existing Digital Inclusion Plans specifically developed by a Tribal Government. However, existing plans can support Tribal populations. The MBO collaborated with these various groups in developing its Digital Opportunity Plan to ensure the statewide plan is aligned to and incorporates existing efforts. The MBO will also work to promote existing Digital Opportunity Plans and Programs throughout program implementation. The MBO will encourage such entities to apply for Digital Opportunity Program funding, where relevant, as a means to accelerate existing efforts and support long-term sustainability. While the MBO is not aware of any existing regional, municipal, or tribal Digital Opportunity Plans, the MBO will remain in close coordination with these stakeholder groups to ensure alignment with the statewide plan in the event these groups decide to develop their own plans. In the event these stakeholder groups develop their own Digital Opportunity Plans, the MBO will work closely with them to ensure alignment with the Statewide Digital Opportunity Plan and update the statewide plan, if needed, to ensure their efforts are incorporated.

3.1.3 Existing digital opportunity programs

A number of programs already exist in the state of Montana to help promote digital opportunity. These programs highlight the importance of Community Anchor Institutions as key partners in helping to close the digital divide, as many are administered by libraries and colleges. These programs can be built on and supplemented with additional efforts to improve digital opportunity.

Exhibit 11 includes a list of programs to advance digital opportunity instituted by municipalities, CAIs, and organizations across the state of Montana.

Exhibit 11: Existing digital opportunity programs

Organization name	Asset name	Description	Covered population	Link
Montana public and tribal libraries	Library Wi-Fi locations	Public libraries provide free Wi-Fi throughout the state of Montana	a, b, d, e, f, g, h	https://montana.maps.arcgis.com/apps/instant/nearby/index.html?appid=a733846b0bdd4e44a1f36aff4f89b411&

Organization name	Asset name	Description	Covered population	Link
				&center=-109.7809,46.6429&level=5
Montana public and tribal libraries	Exam proctoring	Libraries across the state routinely provide exam proctoring	a, b, d, e, f, g, h	Example: https://www.missoulapubliclibrary.org/home/services/in-library-services/
Montana State University	Lifelong Learning Center	MSU offers digital literacy education programs	a, b, d, e, f, g, h	https://www.gfcmsu.edu/lifelonglearning/
Montana Department of Labor and Industry	The Incumbent Worker Training (IWT) program	Grant funding resource to help off-set a portion of skills-based training (including digital skills) costs for incumbent workers employed by Montana's small businesses	a, b, d, e, f, g, h	https://wsd.dli.mt.gov/employers/incumbent-worker-training-program/
Montana public and tribal libraries	Hotspot lending programs	Every public and tribal college library in Montana is eligible to receive hot spots that they can use as they choose to help their communities	a, b, d, e, f, g, h	Examples: Montana State Library: https://msl.mt.gov/libraries/hotspotlendingprogram; Salish Kootenai College: https://iq2.smartcatalogiq.com/en/Catalogs/Salish-Kootenai-College/2022-2023/Catalog/Other-Student-Services-and-Supports/Library
Montana State University	Montana State University Technology Checkouts	The library technology lending service provides a free option for MSU Students and employees to borrow a variety of items, including laptops, iPads, and Wi-Fi hot spots	a, b, d, e, f, g, h	https://www.lib.montana.edu/request/tech-checkouts/
Department of Labor Employment and Training Administration (ETA)	Workforce Innovation and Opportunity Act (WIOA)	WIOA funds can be used to pay for devices and broadband internet service that will allow a participant to create or maintain a wireless connection for distance learning, etc., where such services are already allowable	a, b, d, e, f, g, h	https://www.dol.gov/agencies/eta/wioa
Missoula Public Library	Tech Connect	MPL offers basic technology sessions for those new to using computers, mobile devices, and the internet	a, b, d, e, f, g, h	https://www.missoulapubliclibrary.org/home/programs-events/ongoing-programs/classes/tech-connect/
The Billings Public Library	Mobile Hotspots	Mobile hotspots can be checked out by all patrons for free	a, b, d, e, f, g, h	https://billingslibrary.org/483/Mobile-Hotspots
Bozeman Public Library	Mobile Hotspot and Laptop Lending	The library provides free mobile Wi-Fi hotspots, Chromebook/ hotspot kits, and HP ProBook laptops for checkout	a, b, d, e, f, g, h	https://www.bozemanlibrary.org/services/additional-services/mobile-hotspot-laptop-lending
Montana State Library	Digital skills initiatives for library staff	The library has been developing digital skills curricula for library staff through various programs, including 30-minute Tiny Tech Training videos on various topics, as well as using online cohort to learn software skills (e.g., Word and Excel). To date, the efforts have been directed toward library staff, so that they can improve their digital skills, and then provide knowledge and models that they can share with community members.	N/A (library staff)	N/A (information about efforts provided by Montana State Library)

3.1.4 Broadband adoption

Exhibit 12 includes assets that promote broadband adoption and are administered by non-government entities in the state of Montana. While the goals of the listed assets could advance digital opportunity, these efforts are relatively small scale. This gap in support of broadband adoption can be filled through the Digital Opportunity Plan's strategies referenced in Section 5.

Exhibit 12: Assets that promote broadband adoption

Organization name	Asset name	Description	Covered population	Link
Community Skills Initiative by Montana Chamber Foundation	Community Skills Initiative	This free program helps job seekers successfully navigate the paths to in-demand roles in a more digital economy by promoting digital skills and employability	a, b, d, e, f, g, h	https://www.communityskilling.org/partner/montana

3.1.5 Broadband affordability

Exhibit 13 includes assets that promote broadband affordability and are administered by non-government entities in the state of Montana.

While Montana is home to many residents who qualify for the ACP, use of the program remains low. For more information about ACP eligibility and adoption, please refer to section 3.2.3.

An opportunity exists to develop additional efforts to increase broadband affordability, as this is a major challenge to access faced by the state's residents. For more information about the affordability barriers faced by covered populations and Montana as a whole, please see section 3.2.1 and 3.2.3. This gap in support of broadband affordability could be addressed by the Digital Opportunity Plan's strategies referenced in Section 5.

Exhibit 13: Assets that promote broadband affordability

Organization name	Asset name	Description	Covered population	Link
Triangle Communications	Community Wi-Fi	Triangle provides access at all of our Community Wi-Fi hotspot locations.	a, b, d, e, f, g, h	https://www.itstriangle.com/services/misc/community-Wi-Fi#locations

In addition to the above inventory, several ISPs offer low-cost plans, including:

- Frontier ISP[42]
- TruConnect[43]

[42] Frontier, https://frontier.com/discount-programs/affordable-connectivity-program
[43] TruConnect, https://www.truconnect.com/states/montana

According to USAC[44], some ISPs offer plans that, with the ACP, cost $0, including:

- Spectrum (Charter Communications Operating, LLC)[45]

According to USAC[46], many ISPs also offer discounted devices:

- PCs for People
- Ztar Mobile, Inc
- Sano Health LLC
- Cintex Wireless, LLC
- SafetyNet Wireless
- Airtalk Wireless
- IDT Domestic Telecom, Inc.
- Sage Telecom Communications, LLC
- Boost Mobile
- Infiniti Mobile
- Clear Wireless, LLC
- Global Connection Inc. of America
- Total Wireless
- Simple Mobile
- Walmart Family Mobile
- TracFone
- Net10
- Page Plus
- Go Smart
- Treasure State Internet & Telegraph
- human-I-T
- Q Link Wireless LLC
- UVNV, Inc.
- NewPhone Wireless, LLC
- Clear Wireless, LLC
- Selectel Wireless
- Excess Telecom, Inc.
- Boomerang Wireless, LLC
- SWA Connect, LLC
- TruConnect[47]
- Straight Talk

[44] Universal Service Administrative Co., https://cnm.universalservice.org/
[45] Spectrum, https://www.spectrum.com/internet/spectrum-internet-assist
[46] Universal Service Administrative Co., https://cnm.universalservice.org/
[47] TruConnect, https://www.truconnect.com/devices

3.2 Needs assessment

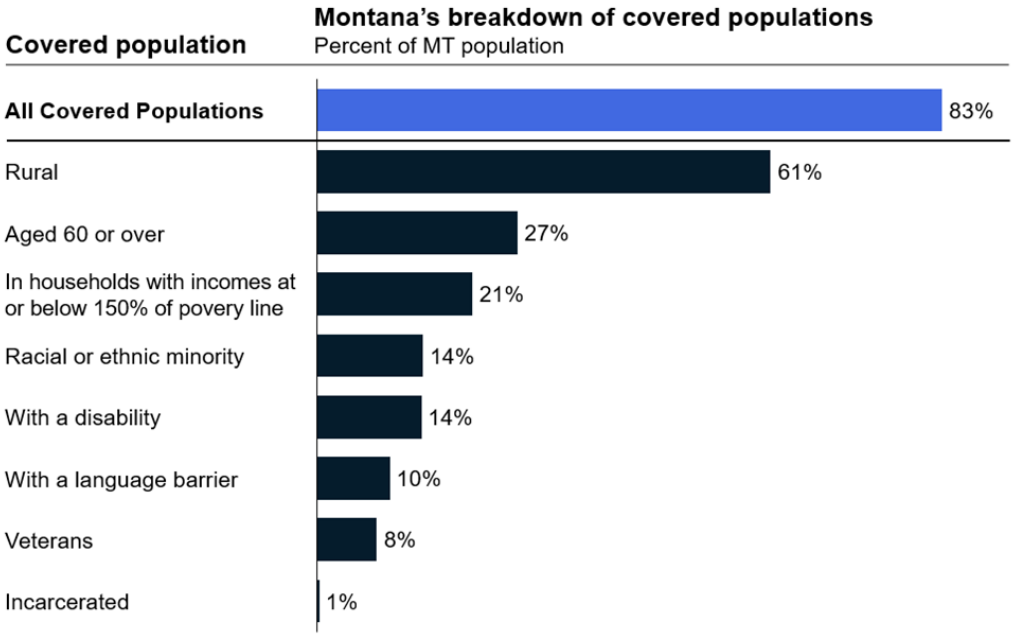
3.2.1 Covered population needs assessment

The Digital Opportunity Plan's aim is to close the digital divide for covered populations, which include:

a. Individuals who live in covered households, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census
b. Aging individuals
c. Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility.
d. Veterans
e. Individuals with disabilities
f. Individuals with a language barrier, including individuals who are English learners and/or have low levels of literacy.
g. Individuals who are members of a racial or ethnic minority group
h. Individuals who primarily reside in a rural area

Covered populations make up 83.3 percent of Montana's population, with individuals who primarily reside in a rural area accounting for nearly two-thirds of the state's citizens. The elderly constitutes the second largest covered population at 27 percent, and households with incomes at or below 150 percent of the poverty line make up 21 percent of the state's population (Exhibit 14).

Exhibit 14: Montana's breakdown of covered populations[48]

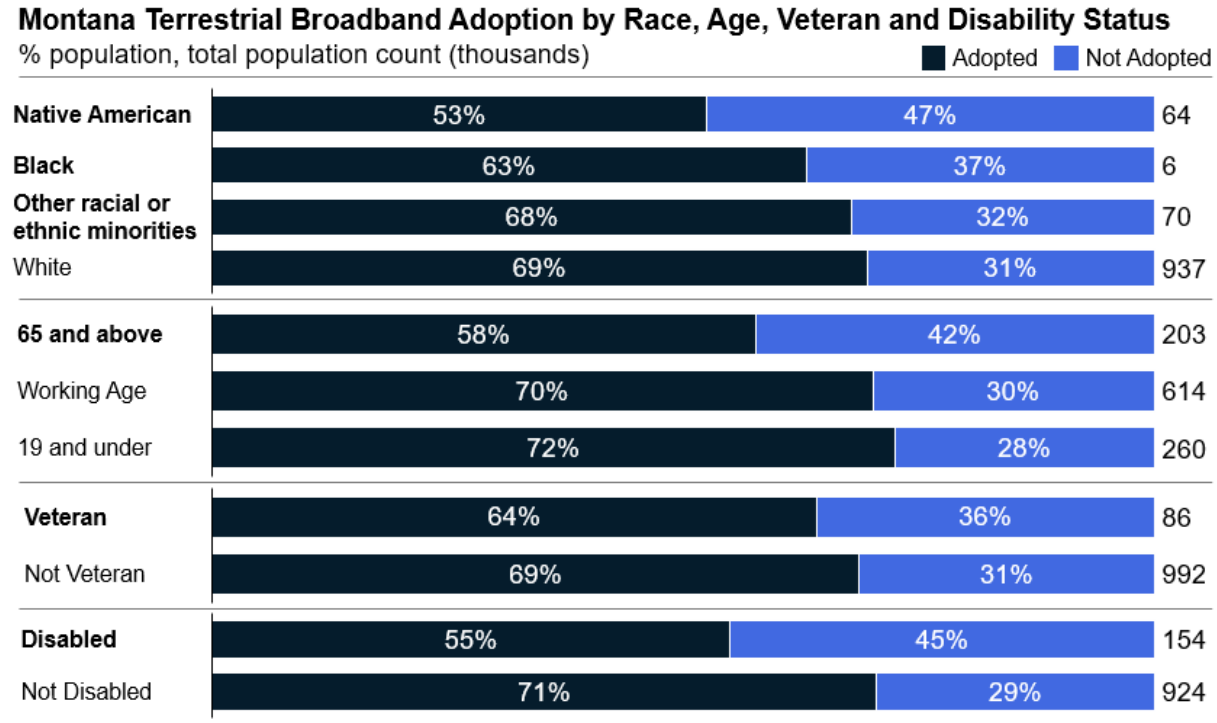


Covered populations in the state of Montana face several barriers to digital opportunity, including broadband availability, affordability of service, lack of access to devices, and limited digital skills.

A relationship exists between an individual's status as a member of a covered population and their broadband adoption. Covered populations—including ethnic and racial minorities, aging individuals, veterans, and individuals with disabilities—have lower rates of broadband adoption than their counterparts. The divide in adoption is particularly pronounced for racial and ethnic minorities, elderly individuals, and individuals with disabilities (Exhibit 15). Within racial and ethnic minorities, Native Americans have the lowest rate of broadband adoption at 53%. However, broadband adoption is also lower among other racial and ethnic minorities compared to the general population at 68%. Additionally, broadband adoption among non-native English speakers is 56%, showing a need for additional support for this covered population.

[48] Digital Equity Act Population Viewer, Census, https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=a0013a9dcbb9419e855f563d78e892ef

Exhibit 15: Montana terrestrial broadband adoption by race, age, veteran, & disability status[49]



Broadband availability

As the fourth largest state in the country, Montana has an area of nearly 150,000 square miles.[50] In terms of total population, Montana comes in 44th nationally, with just over one million residents.[51] This low population density, coupled with topographic hurdles like vast plains and long ranges of the Rocky Mountains, poses challenges to establishing broadband infrastructure, leaving many Montanans without access to adequate internet speeds. According to a survey administered by the MBO, 73.8 percent of Montanans cited lack of availability as the primary reason that they don't have high-speed internet.[52]

The Great Plains are glaciated, frequently freezing in the winter, and sparsely populated, and the Rockies feature mountains and high elevation—all of which may make laying fiber optic cable challenging and expensive. The eastern part of the state suffers from some of the lowest accessibility to and adoption of high-speed internet, and the Great Plains region, which is remote and sparsely populated, lacks adequate broadband infrastructure.

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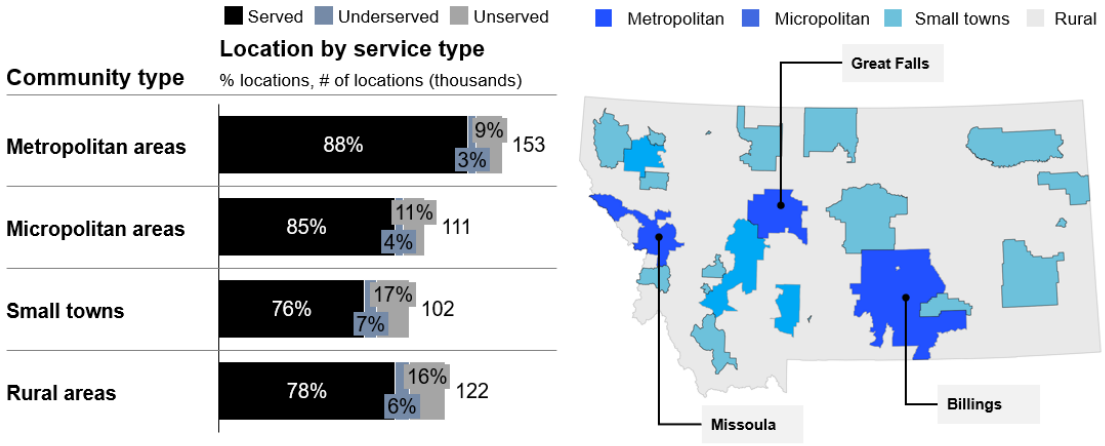
[49] U.S. Census Bureau, American Communities Survey (ACS), 2021; includes DC; https://data.census.gov/table?q=internet&g=040XX00US30&tid=ACSST5Y2021.S2801
[50] Brittanica, Montana, https://www.britannica.com/place/Montana-state
[51] U.S. Census Bureau, Montana QuickFacts, https://www.census.gov/quickfacts/MT
[52] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622

Rural areas have the highest total number of unserved and underserved areas, with 7,826 underserved and 19,208 unserved (see Exhibit 16).

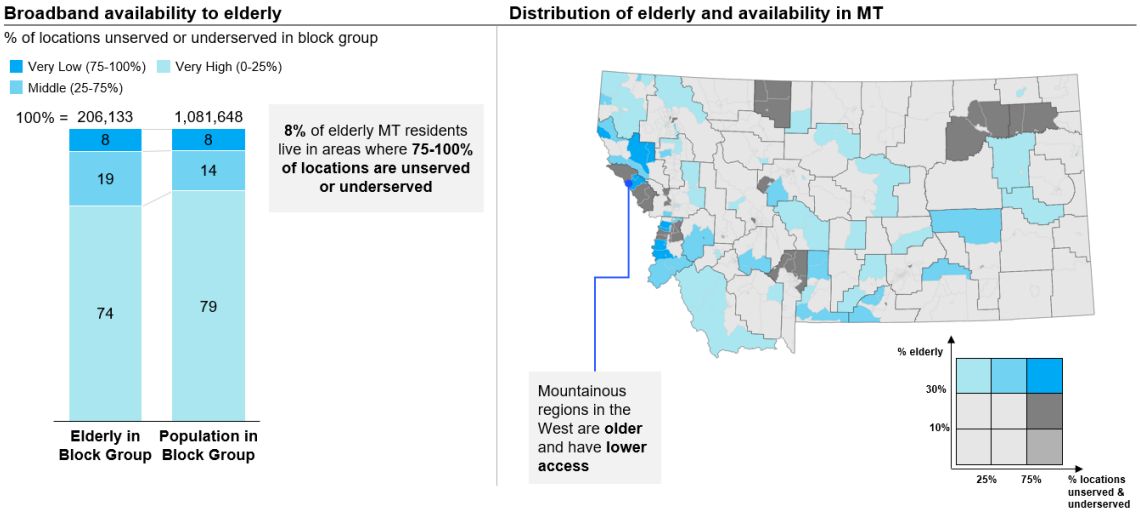
Exhibit 16: Location by service type[53]



Rural areas also tend to have high proportions of elderly residents for whom affordability and lack of digital skills are barriers to access (see Exhibit 17).[54]

[53] Service availability data provided by FCC broadband map as of November 18, 2022. Values for served, unserved, and unserved locations reflect location totals when locations to be served by RDOF, CAFII, NTIABIP, Reconnect (prior to May 2023) and RUS are considered served. Locations to be served under additional funding sources (ARPA funds, USDA Reconnect after May 2023) are not currently counted as served (will be updated in the initial proposal, if applicable).
[54] Demographics -- U.S. Census ACS (2016-2020); Service availability data provided by FCC broadband map as of November 18, 2022; Block group boundaries -- U.S. Census (2020)

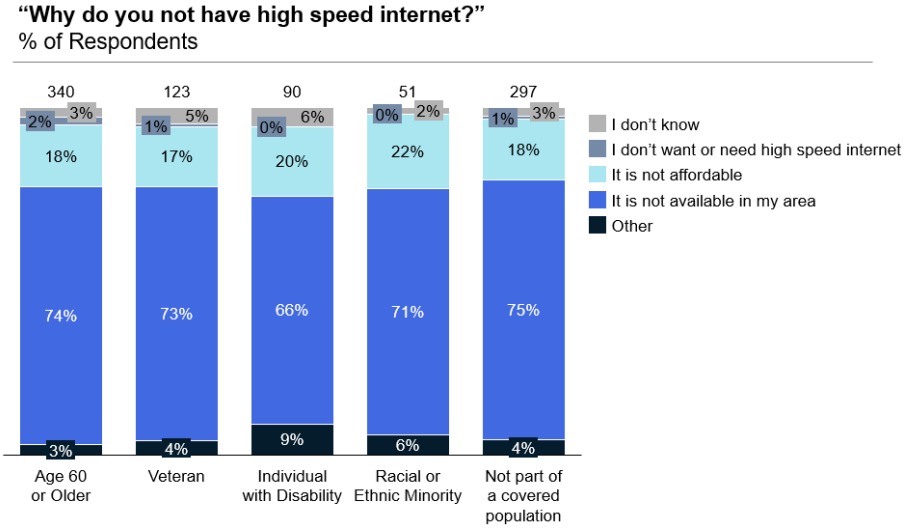
Exhibit 17: Broadband availability to the elderly in Montana[55]



Montanans, regardless of their status as members of covered populations, report lack of availability as the main reason that they don't have high-speed internet (see Exhibit 18). More than 70% of the elderly, veterans, and racial and ethnic minorities reported availability as the reason for not having high-speed internet, indicating access to high-speed internet is a key barrier for these populations.

[55] Demographics -- U.S. Census ACS (2016-2020). Service availability data provided by FCC broadband map as of November 18, 2022; Block group boundaries -- U.S. Census (2020); Elderly refers to individuals aged 65+; Locations un- or underserved are those not presently served with 100/20 Mbps and/or not covered by RDOF, CAF II, Reconnect (prior to May 2023), and RUS. Locations to be served under additional funding sources (ARPA funds, USDA Reconnect after May 2023) are not currently counted as served (will be updated in the initial proposal, if applicable).

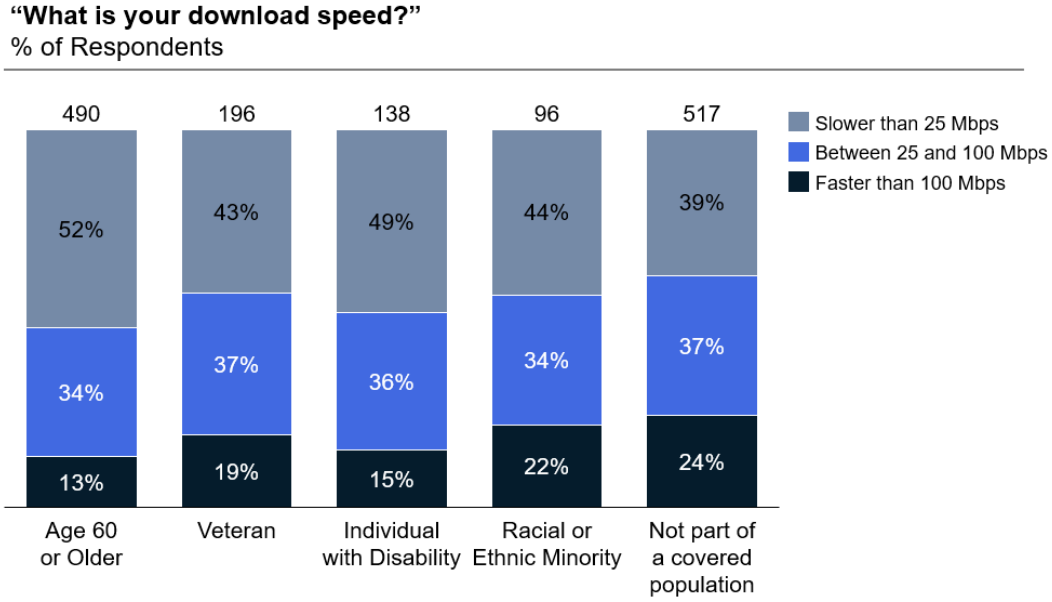
Exhibit 18: Responses to the question, "Why do you not have high-speed internet?" by percentage of respondents[56]



As a result of low broadband availability, compounded by other barriers, covered populations are unserved at higher rates than their counterparts, as a recent survey of Montanans shows, a higher prevalence of download speeds slower than 25 Mbps—with aging individuals at 52 percent, individuals with disabilities at 49 percent, veterans at 43 percent, and racial or ethnic minorities at 44 percent—compared to non-covered populations at 39 percent. Within racial or ethnic minorities, 38% of Native Americans report having download speeds slower than 25 Mbps. The same is true for upload speeds slower than 3 Mbps—with aging individuals at 21 percent, veterans at 19 percent, and racial or ethnic minorities at 22 percent—compared to non-covered populations at 18 percent (see Exhibit 19 and Exhibit 20). Similarly, 26% of Native Americans report upload speeds slower than 20 Mbps.

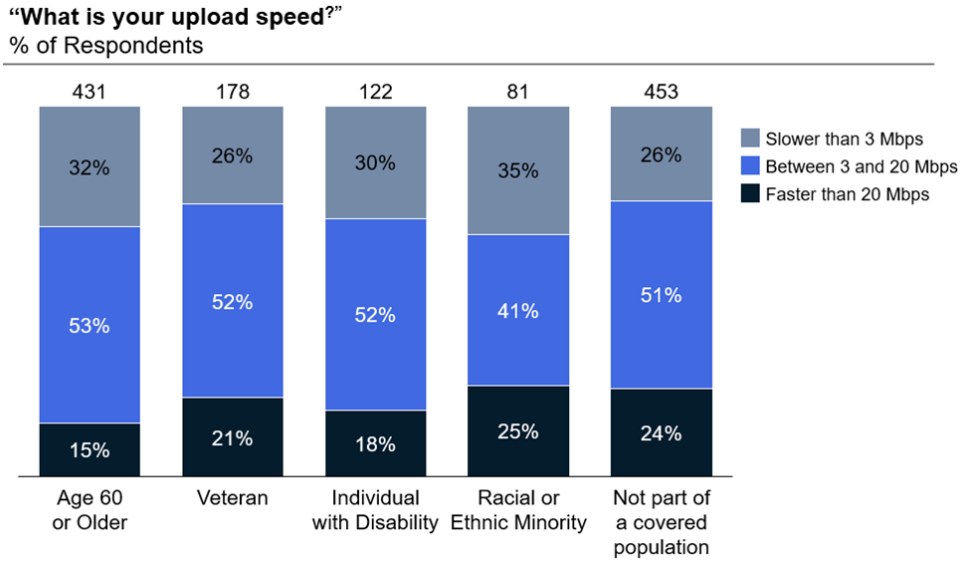
[56] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622

Exhibit 19: Responses to the question, "What is your download speed?" by percent of respondents from covered populations[57]



[57] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622; Some covered populations' respondents belong to more than one covered population (e.g., respondent is age 60 or older and a veteran); Non-Native English speakers were not included due to small sample size; The response "I don't know" was not included. 24 percent (156) of respondents age 60 or older, 19 percent (45) of veterans, 20 percent (34) of racial or ethnic minorities, 21 percent (25) of individuals with a disability, 18 percent (115) of non-covered populations; Results only include 1,560 Montana Residents who answered "No" to "Do you have an internet connection at home?"

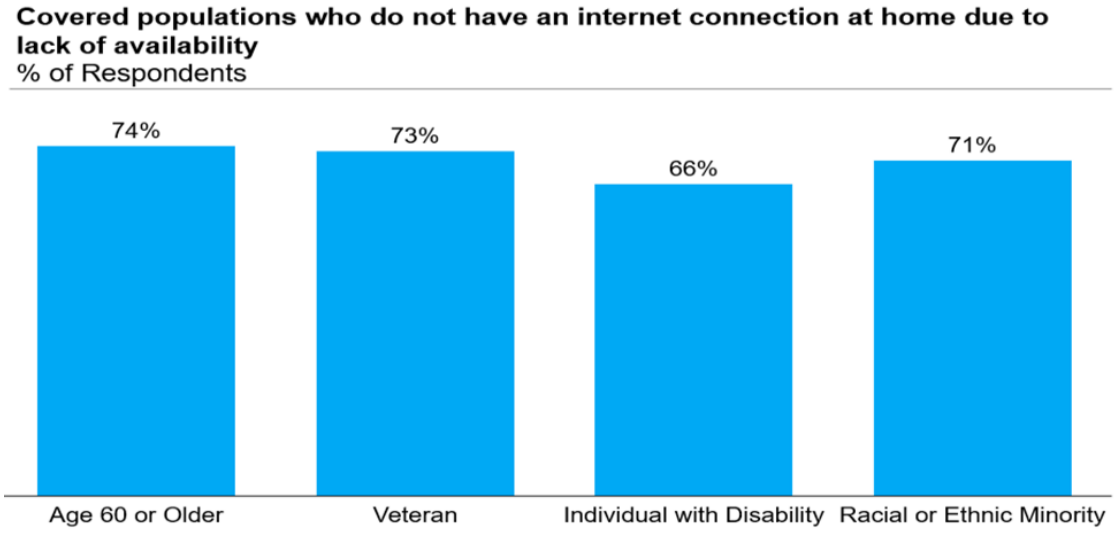
Exhibit 20: Responses to the question, "What is your upload speed?" by percent of respondents from covered populations[58]



Of those who have no internet connection at home, some covered populations, including aging individuals and veterans, report that internet connections are not available in their areas at much higher rates than non-covered populations (see Exhibit 21).

[58] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622; Some covered populations' respondents belong to more than one covered population (e.g., respondent is age 60 or older and a veteran); Non-Native English speakers were not included due to small sample size; The response "I don't know" was not included: 33 percent (215) of respondents age 60 or older, 26 percent (63) of veterans, 29 percent (50) of racial or ethnic minorities, 33 percent (40) of individuals with a disability, 29 percent (181) of non-covered populations; Results only include 1,560 Montana Residents who answered "No" to "Do you have an internet connection at home?"

Exhibit 21: Internet availability for covered populations[59]



State and local incarceration facilities in Montana have mixed broadband service availability. Some facilities (e.g., Montana State Prison) already have fiber-optic broadband, but others (e.g., River Side, Pinehill) have limited internet connectivity. Some of these facilities have requested enhanced broadband speeds for digital programming, but infrastructure does not currently exist.

The Digital Opportunity and BEAD programs' forthcoming efforts to increase broadband availability, could be a key component to getting high-speed internet to covered populations.

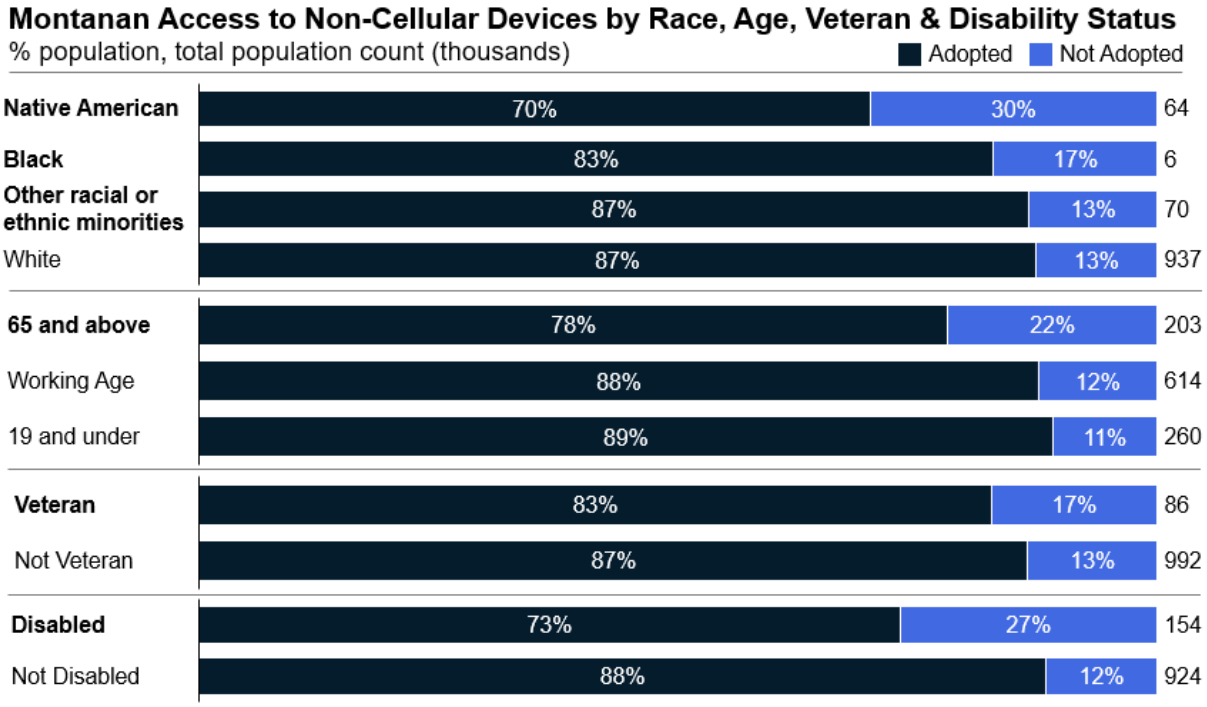
Access to Devices

Individuals who are members of covered populations also have lower rates of access to internet-capable devices than their counterparts. In the absence of these devices, these individuals are unable to access the internet and its resources at home or on the go.

The divide in device access is particularly pronounced for racial and ethnic minorities, aging individuals, veterans, and individuals with disabilities indicating that access to devices is a key barrier for these groups (see Exhibit 22). Individuals with disabilities face a number of hurdles related to device access, as many need specialized equipment that requires training, which is not readily available in much of Montana.

[59] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622. Note: Throughout this survey, some covered populations' respondents belong to more than one covered population (e.g., respondent is age 60 or older and a veteran) and non-Native English speakers were not included due to small sample size.

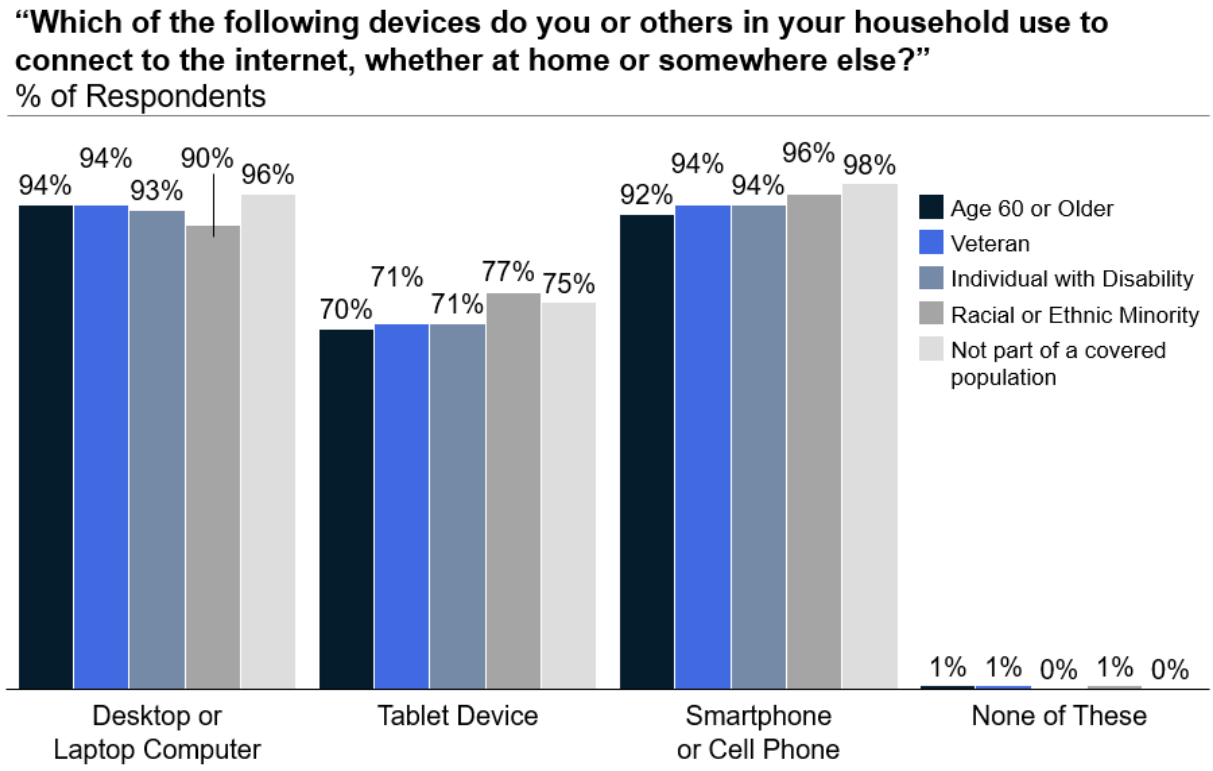
Exhibit 22: Montanans' access to at least one device by race, age, veteran, and disability status[60]



Covered populations use smartphones or cell phones to connect to the internet at lower rates than non-covered populations (see Exhibit 23). The divide is most notable among those 60 and older (92 percent) compared to veterans and individuals with disabilities (94 percent), racial or ethnic minorities (96 percent), and non-covered populations (98 percent). Racial or ethnic minorities use desktops or laptop computers less frequently than their counterparts, indicating that access to these devices specifically is a barrier for this Covered Population. However, they do report higher use of tablet devices (77 percent) than non-covered populations (75 percent). Just 70 percent of seniors report using tablets, which, if adopted, may present useful and user-friendly options.

[60] U.S. Census Bureau, American Communities Survey (ACS), 2021 5-Year Estimates; includes DC; https://data.census.gov/table?q=internet&g=040XX00US30&tid=ACSST5Y2021.S2801

Exhibit 23: Devices used by Montanans to access the internet[61]



To take full advantage of the internet, individuals need easy access from home on devices that they are familiar with and comfortable using. Encouraging adoption and use of internet-capable devices could be critical to broadening Montana's meaningful use of broadband.

There are roughly 2,500 inmates in state and local Montana incarceration facilities, but only ~200 devices available for inmates to use. This limits the ability for incarcerated individuals to participate in learning programs or perform other actions from prison (e.g., conversation with attorneys, telehealth, preparing for release [e.g., job searching]). Additional device availability in incarceration facilities could improve the transition back to society with the ability to access these critical resources.

Digital Skills

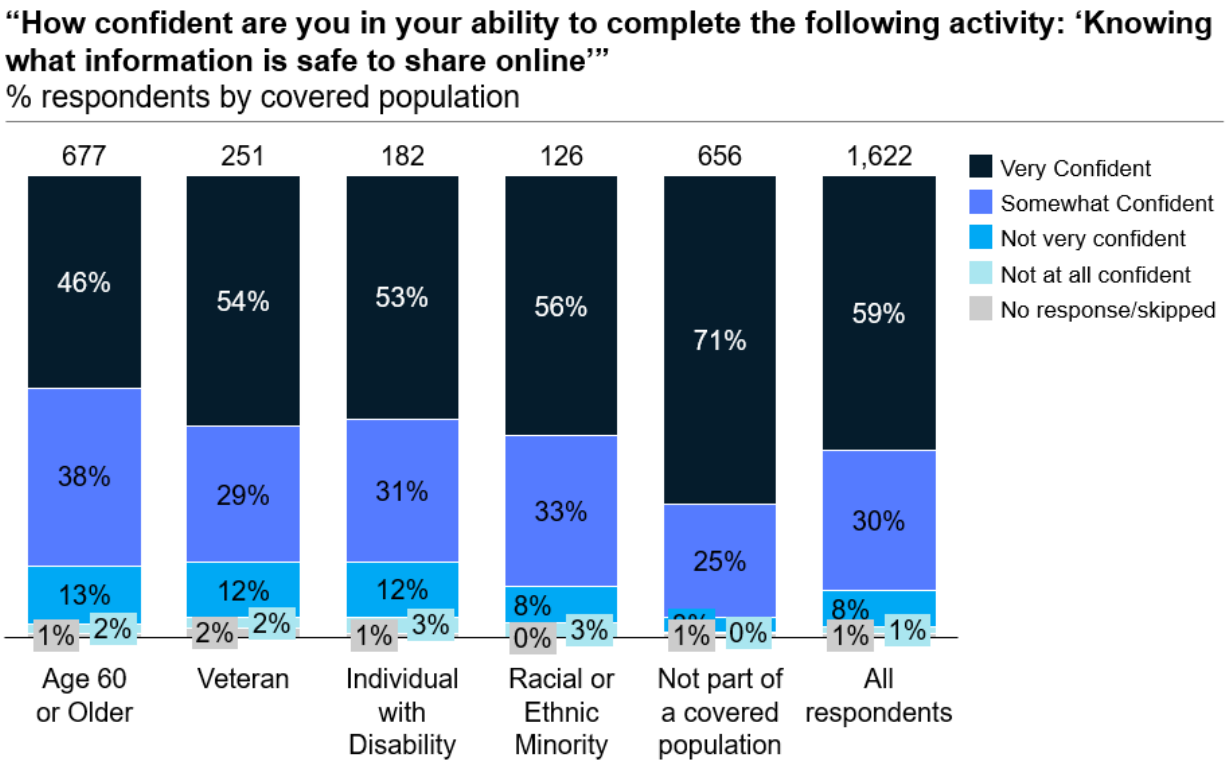
Survey data and anecdotal accounts from interviews with state agencies, including the Department of Military Affairs, suggests that many Montanans, particularly elderly individuals,

[61] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622; 1. Some covered populations' respondents belong to more than one covered population (e.g., respondent is age 60 or older and a veteran); 2. Non-Native English speakers were not included due to small sample size

veterans and those living in rural areas, may benefit from additional digital skills training to help bridge the digital divide, which contributes to low rates of broadband adoption.[62]

A survey administered by the MBO showed that covered populations—particularly aging individuals, veterans, and individuals with disabilities—were less confident in their ability to know what information is safe to share online, indicating limited digital skills.[63] Non-covered populations are 25 percent more likely to be very comfortable deciphering what information is safe to share online than those 60 and older and at least 15 percent more likely when compared with every other covered population (see Exhibit 24). Within racial or ethnic minorities, 47% of Native Americans feel very confident knowing what information is safe to share online.

Exhibit 24: Montanans' confidence in sharing information online[64]



In one survey question posed to people without home internet, ten percent of veterans responded that they lacked broadband because they "don't know how to use the internet," compared to zero percent of non-covered populations.[65]

The absence of robust digital skills programs in the state may also contribute to inadequate digital skills and an unfamiliarity with the internet.

[62] Department of Military Affairs, Interview, October 26, 2022
[63] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622
[64] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622
[65] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622

Further, more concerted efforts may be needed to promote digital skills for individuals with disabilities, some of whom require specialized devices and tailored training to learn to use the equipment. The Montana School for the Deaf and Blind noted that visually impaired students require software that reads screens aloud to tell them where their cursors are, and those who are deaf or hard of hearing rely on programs that provide closed captions to follow along during virtual classes.[66] This equipment can be quite costly and finding instructors who are qualified to provide the necessary training for use is a challenge in the sparsely populated state. Individuals with disabilities may need easier and more readily available access to specialized training to develop the skills needed to participate in meaningful digital use.

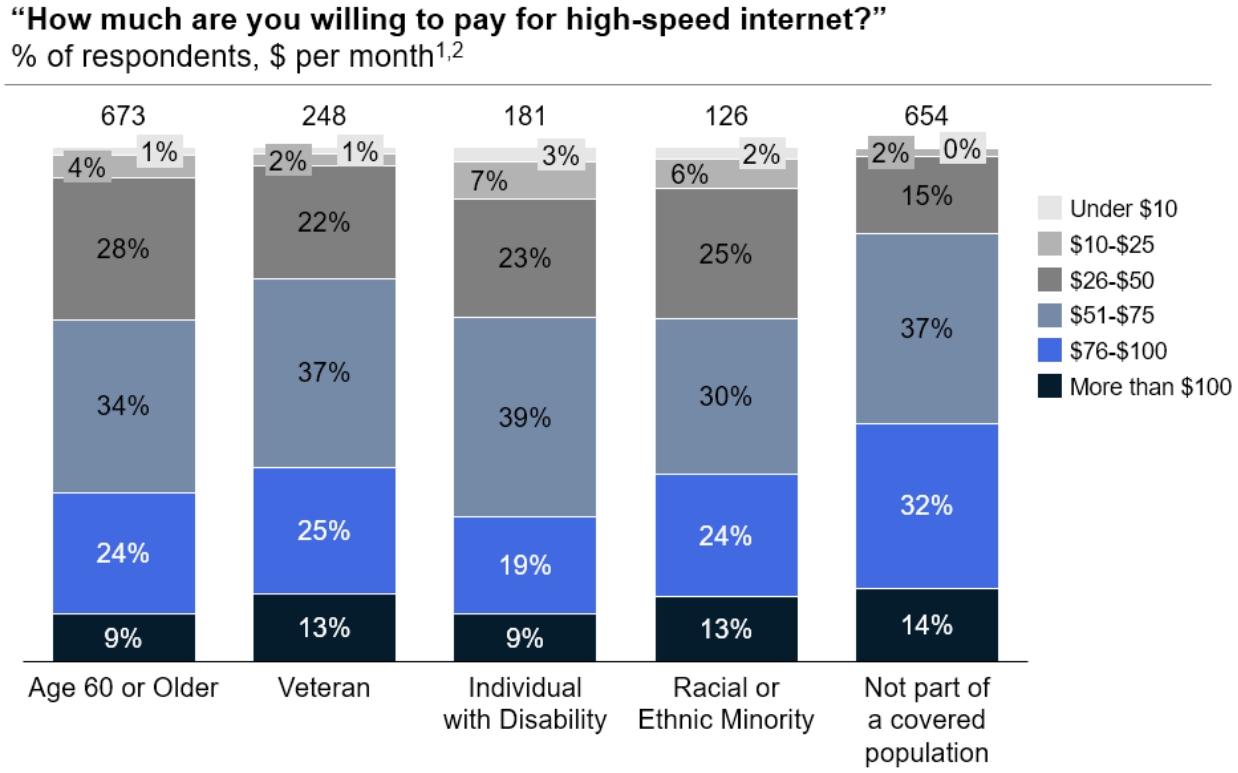
According to conversations with the Montana Department of Corrections, incarcerated individuals are more likely to recidivate partially because they generally work lower paying jobs. Digital skills and tech training could generally help individuals land better and higher paying jobs and may be a way for the State to reduce reentry and rates of recidivism.

Affordability

While affordability is an obstacle to high-speed internet access, a Montana Broadband Office survey indicates that most Montanans are willing to pay more than $50 per month for internet. There is a gap in willingness to pay between covered and non-covered populations: 83 percent of non-covered populations are willing to pay more than $50, compared to 67 percent of those with disabilities, racial or ethnic minorities, and the elderly, and no more than 75 percent of veterans indicating that affordability is a key barrier to digital opportunity for these covered populations (see Exhibit 25).

[66] Montana School for the Deaf and Blind, Interview, October 28, 2022

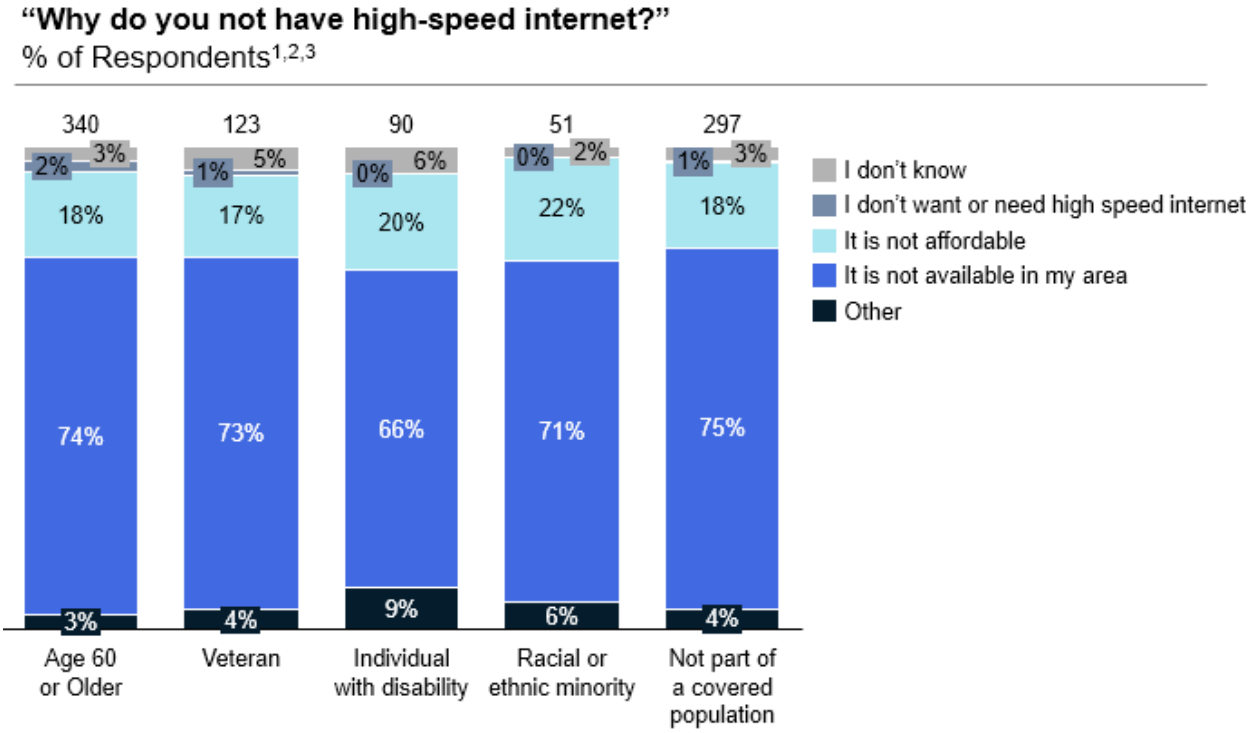
Exhibit 25: Montanans' willingness to pay for high-speed internet[67]



Survey data shows that across covered populations, lack of affordability is a primary reason for their lack of high-speed internet. Eighteen percent of survey respondents aged 60 and older report that internet is unaffordable, 22 percent of racial or ethnic minorities, 20 percent of individuals with disabilities, and 17 percent of veterans. Eighteen percent of non-covered populations cite lack of affordability as the main reason for their inadequate broadband access (see Exhibit 26).

[67] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622

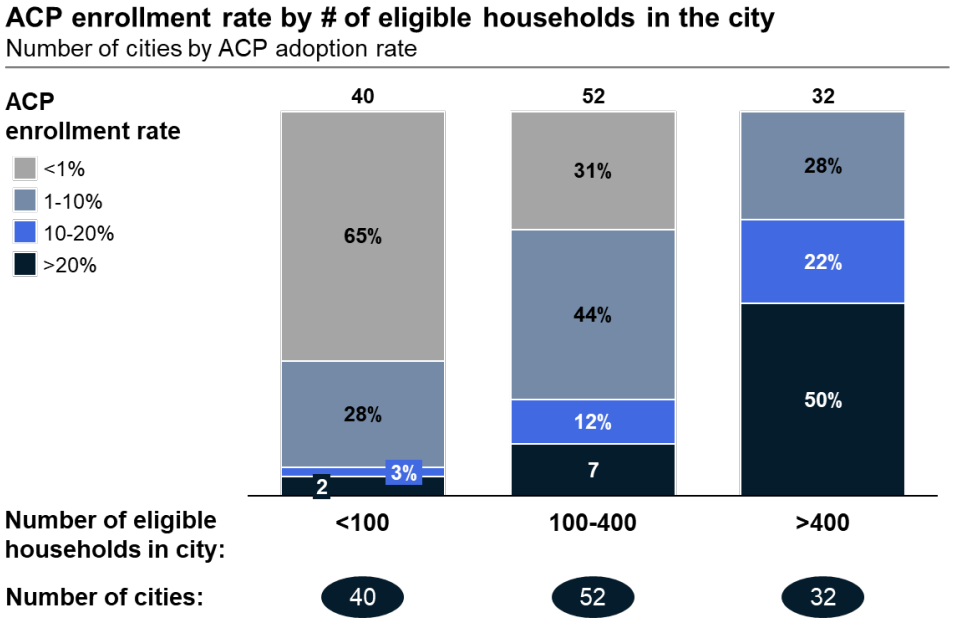
Exhibit 26: Reasons Montanans do not have high-speed internet[68]



ACP adoption may be a key strategy to help address the affordability gap for Montanans. ACP uptake is minimal in rural areas, while more populous areas also have room for growth. Cities with fewer households (<400) that are eligible for ACP tend to have lower adoption rates, as only nine percent of these cities have an adoption rate greater than 20 percent. Most cities with fewer than 100 eligible households have less than one percent ACP adoption. Densely populated cities (>400 eligible households) are more likely to have higher ACP adoption rates (see Exhibit 27).

[68] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622; 1. Some covered populations' respondents belong to more than one covered population (e.g., respondent is age 60 or older and a veteran); 2. Non-Native English speakers were not included due to small sample size; 3. Includes respondents with download speed "Slower than 25 Mbps" or "Between 25 Mbps and 100 Mbps" and upload speed "Slower than 3 Mbps" or "Between 3 Mbps and 20 Mbps"

Exhibit 27: ACP enrollment rates by number of eligible households in the city[69]



The Department of Corrections noted that many individuals who are released from incarceration go to work lower paying jobs after their release. The general assumption is that these individuals would probably qualify for ACP and other affordable plans, but due to their lack of digital skills may not be aware of this. Additional ACP and other affordable plan promotion may introduce this covered population to adopt broadband internet when it is available to them.

To overcome affordability barriers, Montana may choose to encourage the availability of low-cost plans and promote the adoption of the ACP, as noted in Section 5.

3.2.2 Broadband adoption

Even where high-speed internet is available, Montana still has a gap in adoption. Nationwide, Montana ranks 44th in high-speed internet adoption, with 67 percent of households subscribed to high-speed terrestrial broadband (including cable, fiber optic, or DSL).[70]

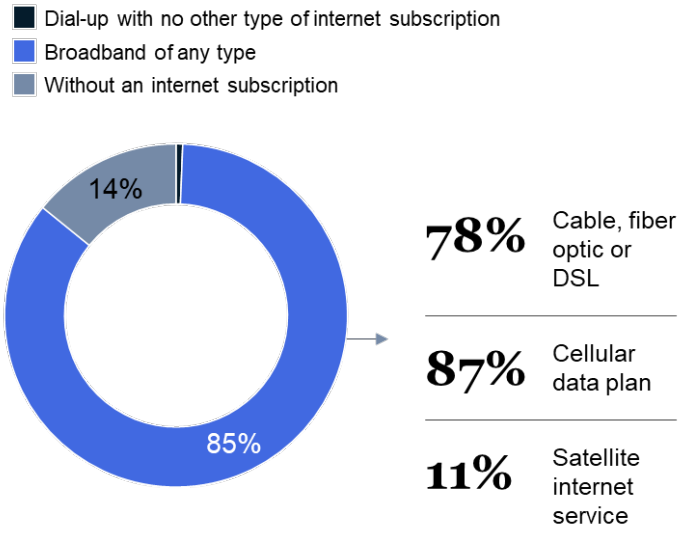
When considering all forms of internet, such as terrestrial broadband, cellular, and satellite, 89 percent of households have adopted broadband of some type, while 11 percent do not have internet subscriptions of any kind. As shown in Exhibit 28 below, of the households that have adopted internet, 78 percent have cable, fiber optic, or DSL, 87 percent have cellular data plans, and 11 percent have satellite internet service, suggesting that a significant number of Montanans

[69] No Home Left Offline, Education Superhighway, https://www.educationsuperhighway.org/no-home-left-offline/acp-data/, 1. ACP enrollment rates are based on EducationSuperHighway estimate of eligible households (total 190,560) vs. 137,951 through only using income less than 200 percent of the federal poverty line

[70] US Census Data, 2021 ACS 5-Year Estimates, https://data.census.gov/table?q=internet&g=040XX00US30&tid=ACSST5Y2021.S2801

are using cellular plans as their primary internet connection. According to a survey commissioned by the Montana Broadband Office to support development of this plan (n=1,622), 73.8 percent of Montanans without high-speed internet cited lack of availability as the primary reason.[71]

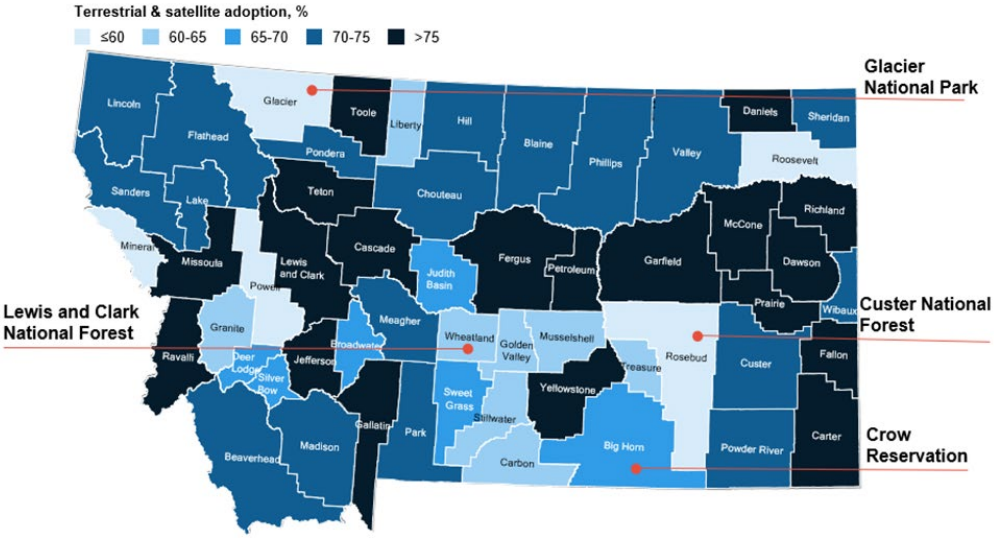
Exhibit 28: Internet adoption in Montana[72]



Most Montana counties use some form of broadband, either terrestrial or satellite. However, five counties (Rosebud, Glacier, Powell, Mineral, and Roosevelt) have less than 60 percent adoption of terrestrial or satellite internet (Exhibit 29).

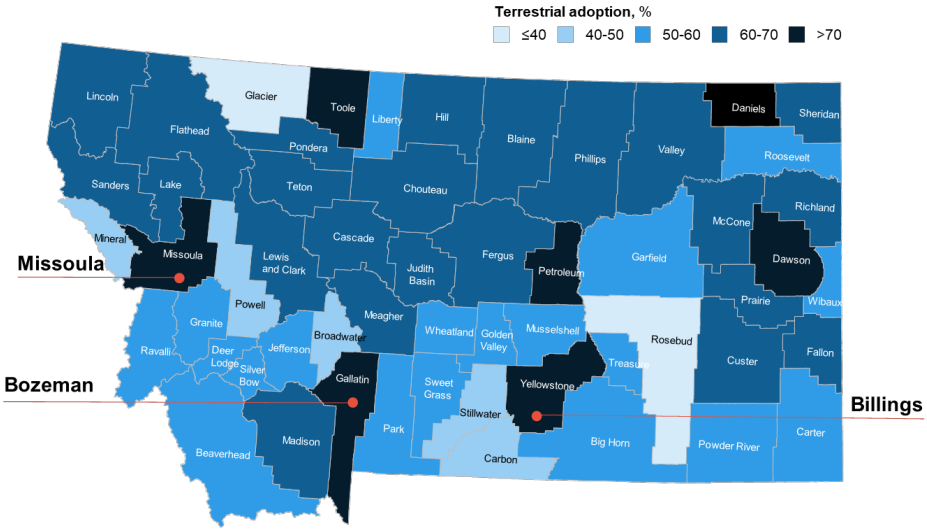
[71] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622
[72] ACS 5-Year Estimates, US Census Data, 2021, https://data.census.gov/table?q=internet+subscription&g=0400000US30

Exhibit 29: Terrestrial and satellite broadband adoption by county[73]



There is significant variation in adoption of terrestrial broadband across Montana counties. Seven counties in the state of Montana have at least 70 percent adoption of terrestrial broadband. Some counties with low rates of terrestrial broadband adoption are surrounded by counties with significantly higher adoption rates (e.g., Broadwater, Glacier), which could be due to topography and population density (see Exhibit 30).

Exhibit 30: Household terrestrial broadband adoption by county[74]

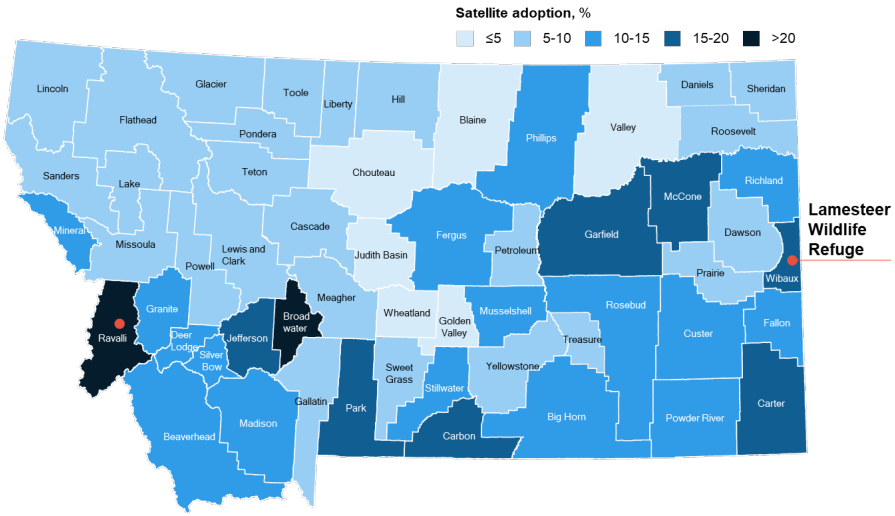


[73] ACS 5-Year Estimates, US Census Data, 2021

[74] US Census data 2021 5-Year Estimates. https://data.census.gov/table?q=internet&g=050XX00US30063,30061,30027,30069,30025,30023,30067,30065,30021,30029,30095,30051,30093,30091,30059,30015,30057,30013,30099,30011,30055,30097,30053,30019,30017,30041,30085,30083,30081,30005,30049,30047,30003,30089,30001,30045,30

Satellite internet comprises a sizable portion of broadband adoption for several Montana counties. It is largely concentrated in the Southwest and Eastern regions of the state. Two counties rely on satellite for a sizeable portion (>20 percent) of their internet usage: Ravalli and Broadwater Counties. The counties with higher satellite internet adoption than others generally have relatively lower terrestrial broadband availability (see Exhibit 31).

Exhibit 31: Satellite broadband adoption by county[75]



The state of Montana faces meaningful challenges in broadband adoption, and as mentioned above, one of the main challenges is the availability of high-speed broadband. Strengthening the state's broadband infrastructure is the first step in promoting adoption. In tandem, Montana may also address affordability of service and devices, as well as digital skills programs. Potential strategies are detailed in Section 5.

3.2.3 Broadband affordability

For Montanans, affordability is a main hurdle preventing access to high-speed internet.

According to BroadbandNow, in 2021, Montana ranked 49th among US states in access to affordable plans, as only 62 percent of households had access to wired plans, including DSL,

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043,30087,30009,30007,30073,30071,30037,30079,30035,30077,30033,30075,30031,30039,30109,30107,30105,30103,30101,30111&tid=ACSST5Y2021.S2801; Terrestrial includes fiber optic, cable, DSL

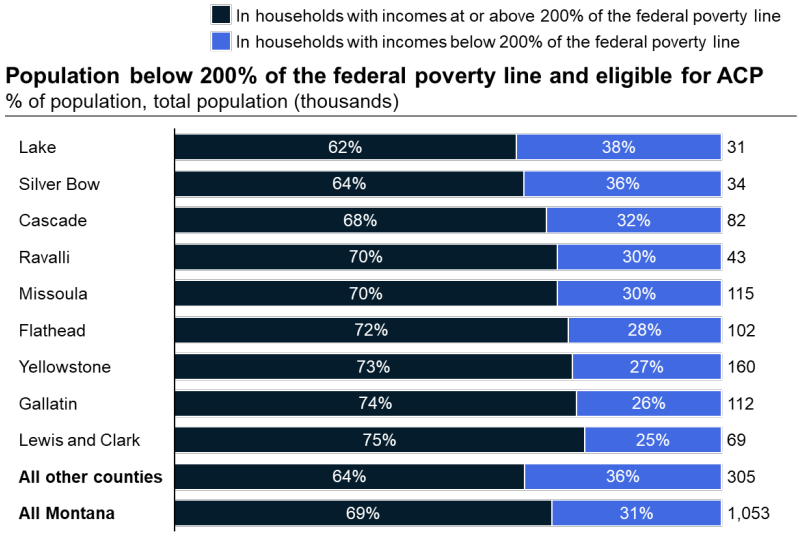
[75] US Census data 2021 5-Year Estimates. https://data.census.gov/table?q=internet&g=050XX00US30063,30061,30027,30069,30025,30023,30067,30065,30021,30029,30095,30051,30093,30091,30059,30015,30057,30013,30099,30011,30055,30097,30053,30019,30017,30041,30085,30083,30081,30005,30049,30047,30003,30089,30001,30045,30043,30087,30009,30007,30073,30071,30037,30079,30035,30077,30033,30075,30031,30039,30109,30107,30105,30103,30101,30111&tid=ACSST5Y2021.S2801

copper, cable, or fiber, of 25 Mbps download/3 Mbps upload or higher and a standalone broadband speed plan that is $60/month or less.[76]

According to a survey commissioned by the Montana Broadband Office, affordability was the second most commonly cited reason (after availability) for not having access to high-speed internet. Nearly 17 percent of Montanans without high-speed internet cited lack of affordability as the primary reason for not having adequate internet access.[77] Thirty-five percent of Montana households with an income under $20,000 do not have broadband at home, versus 17 percent for those with incomes $20,000-75,000, and five percent of those earning above $75,000, indicating a strong relationship between income and internet adoption.[78]

At least 31 percent of Montanans live in a household with income below 200 percent of the federal poverty line, which could pose a barrier to adoption of broadband. However, this group is eligible for ACP enrollment, which would subsidize the cost of their internet service. Counties with lower populations are more likely to have households with income below 200 percent of the federal poverty line (Exhibit 32).[79]

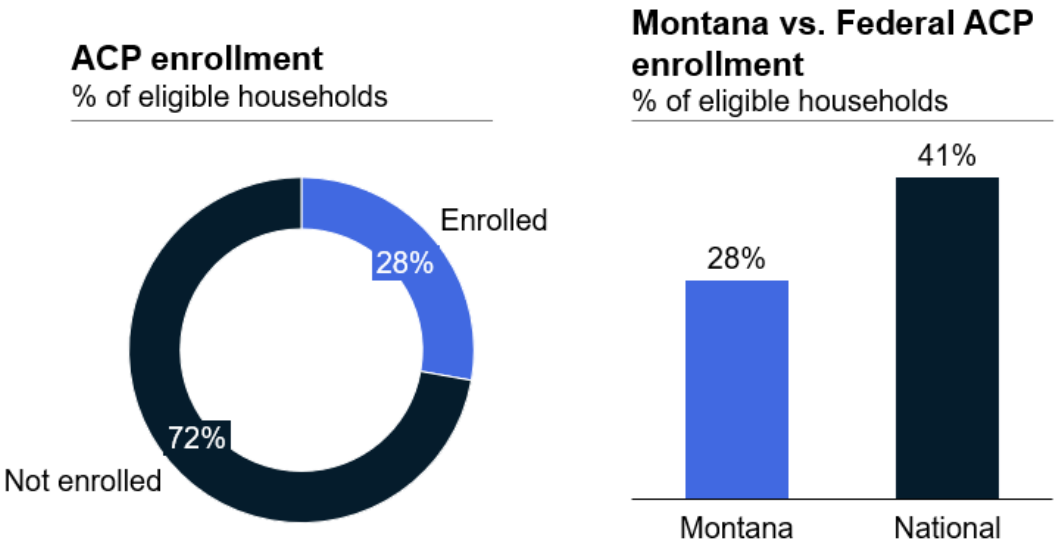
Exhibit 32: Population below 200 percent of the federal poverty line and eligible for ACP[80]



[76] Best and Worst States for Internet Coverage, Prices and Speeds, BroadbandNow, Cooper and Tanberk, 2021, https://broadbandnow.com/research/best-states-with-internet-coverage-and-speed-2021
[77] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622
[78] US Census Data, 2021 ACS 5-Year Estimates. https://data.census.gov/table?q=internet&g=040XX00US30&tid=ACSST5Y2021.S28011
[79] US Census data, 2021 ACS 5-year estimates, census.gov 2016-2020 Housing estimates https://data.census.gov/table?q=C17002&g=040XX00US30$0500000,30&tid=ACSDT5Y2021.C17002
[80] US Census data, 2021 ACS 5-year estimates, https://data.census.gov/table?q=C17002&g=040XX00US30$0500000,30&tid=ACSDT5Y2021.C17002; 1. Total eligibility may be underestimated due to other ways ACP eligibility can be met, e.g., participation in certain government assistance programs like SNAP, Medicaid, WIC, or if a consumer already receives a

Despite the high rate of ACP eligibility among Montanans, at least 72 percent of eligible Montanans have not enrolled in the program, putting the state 40th in national ACP enrollment.[81] At just 28 percent, Montana's ACP enrollment is below the national ACP enrollment average of 41 percent, which presents an opportunity for Montana to focus on increasing ACP enrollment among low-income households (see Exhibit 33).

Exhibit 33: Montana ACP eligibility and uptake[82]



Counties with smaller populations are also more likely to have a lower percentage of households enrolled in ACP.[83] Between large Montana counties, there is significant ACP enrollment variance, and the smallest 47 counties have significantly lower rates of ACP enrollment than the state as a whole (see Exhibit 34).

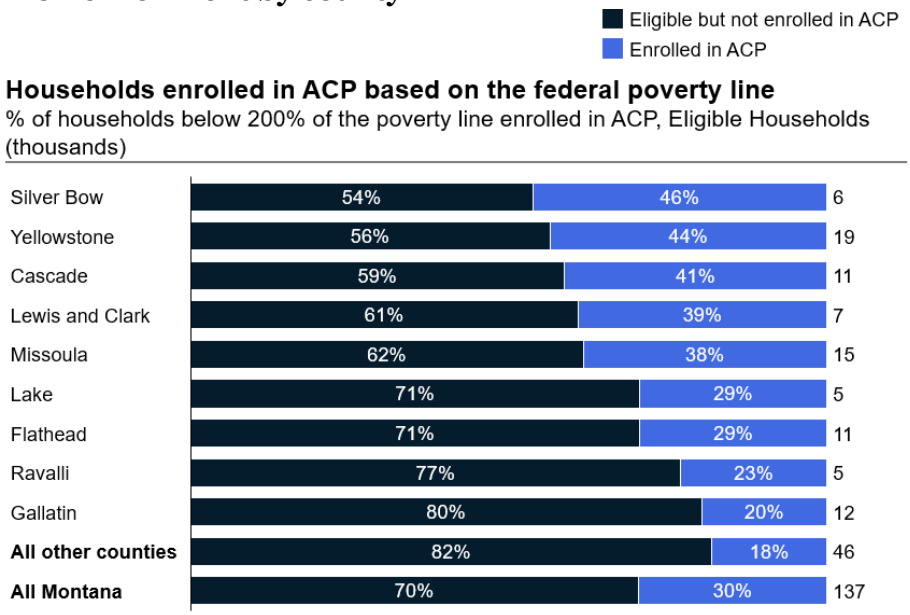
Lifeline benefit. EducationSuperHighway estimates 190,560 eligible households in MT vs. current estimate of 137,951 eligible households; 2. 9 largest counties by population; 3. Includes other 47 counties ranging from a population of 454-19,688

[81] No Home Left Offline, Education Superhighway, https://www.educationsuperhighway.org/no-home-left-offline/acp-data/

[82] US Census data, 2021 ACS 5-year estimates, https://data.census.gov/table?q=C17002&g=040XX00US30$0500000,30&tid=ACSDT5Y2021.C17002; 1. Total eligibility may be underestimated due to other ways ACP eligibility can be met, e.g., participation in certain government assistance programs like SNAP, Medicaid, WIC, or if a consumer already receives a Lifeline benefit. EducationSuperHighway estimates 190,560 eligible households; 2. ACP-enrolled households / total number of eligible households

[83] US Census data, 2021 ACS 5-year estimates, https://data.census.gov/table?q=C17002&g=040XX00US30$0500000,30&tid=ACSDT5Y2021.C17002

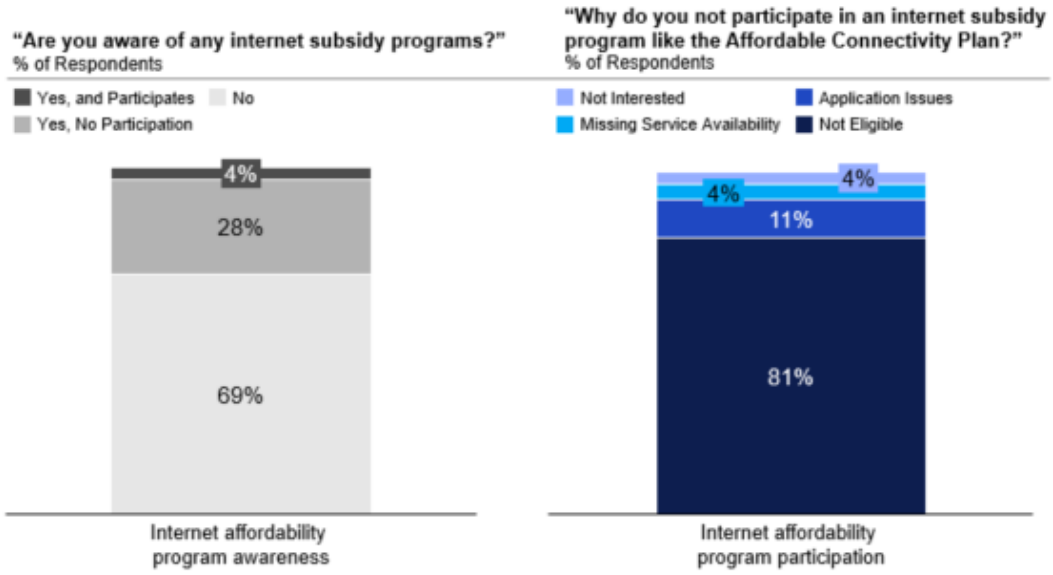
Exhibit 34: ACP enrollment by county[84]



The Montana Broadband Office's recent survey results indicate that lack of awareness may be a key reason for low ACP enrollment.[85] Among survey respondents, 69 percent stated that they are not aware of any internet subsidy programs. Another 28 percent responded that they are aware of internet subsidy programs, but that they do not participate. While some internet providers do inform potential subscribers of ACP eligibility, there are no state, regional, or municipal promotional campaigns, indicating an opportunity to raise awareness and encourage Montanans to take advantage of this program (Exhibit 35).

[84] US Census data, 2021 ACS 5-year estimates, https://data.census.gov/table?q=C17002&g=040XX00US30$0500000,30&tid=ACSDT5Y2021.C17002; 1. 9 largest counties by population; 2. Includes other 47 counties ranging from a population of 454-19,688
[85] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622

Exhibit 35: Montanans' awareness of and participation in internet subsidy programs[86]



Given the high rate of ACP eligibility, low rate of enrollment, and low rate of awareness of internet subsidy programs, there is a potential opportunity for the state to conduct awareness efforts or increase support for enrollment in assistance programs.

[86] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622
- Full first question: "Are you aware of any internet subsidy programs, such as the Affordable Connectivity Plan or the Emergency Broadband Benefit that helps cover monthly internet costs for qualifying households?"
- Second question only included respondents who know about internet subsidy programs, but have not signed up.
- "Not Interested" includes "I don't want/need it," "I am financially stable and can afford service without it," "I haven't pursued it," "I am going to apply," and "Internet service isn't expensive."
- "Application Issues" includes "It is too difficult to apply," "I don't know how to apply," "I applied and was rejected," and "I am not sure if I am eligible."
- "Missing Service Availability" includes "There is no Internet Service Provider in my Area," and "My Internet Service Provider Does not Participate in the Program."
- "Not Eligible" includes "I am not eligible."

4 Collaboration and stakeholder engagement

4.1 Coordination and outreach strategy

Montana's stakeholder engagement process for the Five-Year Action Plan and Digital Opportunity Plan has three main components:

I. Stakeholder identification

II. Engagement approach

III. Stakeholder outreach

Together, these efforts yielded a broad stakeholder engagement process, which allowed the state to place key constituents at the center of its plans to increase broadband availability in Montana and narrow the digital divide.

I. Stakeholder identification

With reference to BEAD guidance as well as input from state government contacts, the MBO identified key external stakeholders and stakeholder groups to engage, including:

- **Political and governmental representatives**: state and territorial agencies, state senators and representatives, city and county officials (e.g., commissioners, other elected officials).
- **Tribal entities**: tribal leadership, tribal colleges, tribal businesses, tribal government officials.
- **Community Anchor Institutions**: libraries, schools, healthcare centers, community colleges, other institutions of higher education, nonprofit and community-based organizations.
- **Economic and workforce actors**: labor organizations and unions, entities that carry out workforce development programs, chambers of commerce, economic development organizations.
- **Telecommunications providers**: internet service providers.
- **Covered populations**: individuals who live in covered households, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census; aging individuals; incarcerated individuals (excluding individuals incarcerated in federal facilities); veterans; individuals with disabilities; individuals with a language barrier; individuals who are members of a racial or ethnic minority group; individuals who primarily reside in a rural area.

Once the list of stakeholder groups was defined, the MBO identified specific individuals within each group, as well as any stakeholders relevant to this engagement process that did not belong

to a predefined stakeholder group. This process required coordinating with public and private organizations for outreach and desk research (e.g., Google searching, cold calls, referrals) to develop a list of approximately 2,800 contacts representing the full range of stakeholders. Since Montana's efforts for the BEAD Five-Year Action Plan and the Digital Opportunity Plan are coordinated, this is a comprehensive list of stakeholders that applies to both plans.

II. Engagement approach

The MBO conducted two main rounds of stakeholder engagement sessions. Round 1, conducted from September 7th to 14th, focused on identifying challenges to internet access and digital equity. Round 2, conducted from December 5th to 9th, focused on soliciting feedback to specific preliminary elements required by the BEAD and DE NOFOs and report templates provided by NTIA. In both rounds, the MBO's approach to stakeholder engagement was guided by the following principles, outlined in the NTIA's guidance:

Full geographic coverage of the Eligible Entity

In-person stakeholder engagement sessions have been held in ten cities: Billings (round 1 and round 2), Glendive, Glasgow, Kalispell, Great Falls, Helena, Butte, Missoula, Havre, and Miles City. The round 2 session in Billings was specifically for Tribal leaders and communities, organized by the Crow Tribe of Nations in coordination with the MBO. The cities for the sessions were selected to ensure diverse geographical representation across the state from both the more populated hubs as well as the rural areas. In each city, the MBO hosted a one-hour public session, as well as three, one-hour breakout sessions with specific stakeholder groups. These stakeholder engagement sessions were hosted in a centrally located, easily accessible location within each city to enable maximum participation. Forty-six virtual stakeholder sessions have also been conducted, open to individuals and organizations located anywhere in the state. The MBO will continue to ensure that geographic coverage of the state enables a range of Montanans to participate.

Meaningful engagement and outreach to diverse stakeholder groups

Exhibit 36 indicates the stakeholder groups for which virtual and in-person engagement sessions and surveys have been conducted. The MBO will continue to prioritize outreach to diverse stakeholder groups.

Establishment, documentation, and adherence to clear procedures to ensure transparency

The stakeholder engagement process was shaped by a discussion guide that ensured the moderator covered all relevant topics while also providing the ability to move naturally between issues as the conversation flowed. Additionally, Montana deployed a streamlined survey to households and community leaders (see Exhibit 37, Exhibit 38, Exhibit 39, and Exhibit 40).

Outreach and engagement of unserved and underserved communities, including historically underrepresented and marginalized groups and/or communities

To direct stakeholder engagement, the MBO developed a list of more than 2,800 stakeholders who represented populations highlighted in the NTIA requirements, including unserved / underserved and covered populations, to understand their needs related to the access, availability, and use of broadband. To reach covered populations, the state also held targeted interviews with stakeholders, including tribal leaders, the Department of Veterans Affairs, the Montana School for the Deaf and Blind, the Department of Corrections, the Department of Public Health and Human Services: State Unit of Aging, and the USDA Rural Development Office in Montana.

Use of multiple awareness and participation mechanisms and different methods to convey information and outreach

Montana engaged its residents through multiple modalities, including 11 in-person and 46 virtual sessions (Exhibit 36) as well as two surveys that were distributed digitally (see Exhibit 37, Exhibit 38, Exhibit 39, Exhibit 40).

In-person and virtual sessions

The MBO hosted both in-person and virtual outreach sessions with the public and targeted stakeholders to better understand the state's challenges in providing adequate broadband service to its residents (see Exhibit 36). The stakeholder engagement sessions were held both in person (during the periods of September 7-14 and December 5-9, 2022) and virtually via Microsoft Teams (September through December 2022). The virtual sessions helped to ensure greater accessibility to stakeholders unable to make a physical session. For those that indicated interest in the virtual option, the MBO coordinated one-on-one to schedule sessions over Microsoft Teams with dial-in accessibility, consolidating as many individuals into the same stakeholder meeting as possible. Additional outreach through email and phone-calling was used to connect with as many stakeholders as possible, conducting supplemental desk research and leveraging referrals given during the sessions to add to the growing list of contacts.

There were two types of sessions, including general public sessions, which sought input from any interested Montanan, and specific stakeholder group sessions, which included representatives from targeted groups such as libraries, local governments, and ISPs.

To direct the sessions, Montana developed discussion guides that covered the following topics:

- Round 1: Challenges to community internet access, technology preferences, how government funds should be used to improve internet access in the community, suggestions for state government (ISP sessions only), digital equity, feasibility for ISPs (ISP sessions only), grant applications (ISP sessions only), and providing internet service (ISP sessions only)
- Round 2: Barriers to connectivity (ISP sessions only), broadband access strategies, digital opportunity strategies, strategies to further workforce development (ISP and tribal sessions only), strategies to address supply chain challenges (ISP sessions only),

strategies to develop an equitable subgrantee process (ISP sessions only), and existing tribal awards (tribal sessions only)

The conversations were structured to be flexible to give participants the ability to move naturally between topics as the conversation flowed. This approach ensured participants had the opportunity to raise topics of interest, return to issues when they had additional input, and lead the conversation into the areas of greatest importance to them.

Surveys

Two surveys, with both quantitative and qualitative questions, were designed and deployed to a broad, representative group of Montanans. For survey methodology and results, please see Appendices 7.1-7.4.

- **Household surveys**: This survey was available to any Montanan over the age of 18 and distributed to a population representative of the state.
- **Community leader survey**: This survey was created to reach community leaders and institutions, including libraries, public health organizations, religious organizations, labor organizations, and chambers of commerce.
- **Topics covered included:**
    - Availability of internet access at home and in the community
    - Type and speed of internet access at home
    - Reasons for internet use
    - Awareness of internet subsidy programs, such as ACP
    - Reasons for lack of home internet access
    - Assessment of affordable monthly price for high-speed home internet

Alternate outreach modalities:

Additional outreach was conducted through email and phone calls to connect with as many stakeholders as possible. The MBO will continue to connect with these stakeholders following submission and implementation of the Digital Opportunity Plan.

Together, these various outreach methods allowed for maximum reach and accessibility to target populations, which helped the state develop a thorough understanding of the challenges in accessing broadband service.

To reach stakeholders, Montana used a number of awareness methods, including:

- Flyers for the general public and stakeholder populations
- Press releases
- Social media posts for Twitter, Instagram, and Facebook

- Email messaging tailored to state agencies and stakeholder populations
- Updated state website language

To reach the general public and targeted stakeholder groups, the MBO distributed materials on engagement opportunities through a range of partner organizations including Broadband MT, Montana Association of Counties, Montana Department of Public Health and Human Services, Economic Developers Association, Montana State Library, Office of Public Instruction, Montana League of Cities and Towns, Montana Chambers of Commerce, Montana Department of Commerce, Governor's Office of Indian Affairs, Business Assistance Connection, ISPs, labor groups, nonprofits, and others. The MBO also used press channels (TV, radio, newspaper) to distribute marketing materials, including KRTV, Great Falls Tribune, Glasgow Courier, BS Central, Glasgow Chamber, KLTZ Radio, KTVQ, KPAX, The Electric, KFBB, and MMJ Montana. Finally, the MBO promoted the sessions through a network of stakeholder contacts by email, state social media pages, and the state website, as well as the state's GovDelivery email contact list.

III. Stakeholder outreach

The state reached a large, representative group of Montanans through its engagement process.

Exhibit 36: Stakeholders engaged through in-person and virtual sessions[87]

Stakeholder group	Number of individuals reached	Examples
Political and governmental representatives	230	State agencies and officials, city and county officials
Economic and workforce development, small businesses, labor unions and workforce organizations	17	Department of Labor and Industry, Montana Public Service Commission, Laborers' International Union of North America
CAIs	35	Billings Clinic, Glendive Public Library, Montana State Library, Office of Public Instruction, Montana Digital Academy
Telecommunications providers and associations	42	BroadbandMT, Nemont, Grizzly Broadband, Range Companies
Tribal entities	33	Native Inter-Tribal Health Alliance, Aaniiih Nakoda College
Covered populations	12	Department of Corrections, Veterans Navigation Network, Montana School for the Deaf and Blind, Welcome Back
Total	543	

Exhibit 37: Stakeholders reached through the MBO household survey[88]

Population	Count	Percent (total number of responses)	Percent (total number of respondents)
Aged 60 or older	677	34.6%	41.7%
Veteran	251	12.8%	15.5%
Individual with a disability (mental or physical)	182	9.3%	11.2%
Non-native English speaker	23	1.2%	1.4%
Currently incarcerated	0	0.0%	0.0%
Racial or Ethnic minority (such as Native American, Black, Hispanic, Asian, etc.)	126	6.4%	7.8%
None of these	656	33.5%	40.4%
Skipped/no response	41	2.1%	2.5%
TOTAL	1,956 responses (1,622 respondents)	100%	N/A

[87] In-person and virtual sessions conducted by the MBO
[88] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622

Exhibit 38: Stakeholders who live on reservations reached through the MBO household survey[89]

Reservation	Count	Percent
Blackfeet Tribe of the Blackfeet Reservation	7	7.9%
Chippewa Cree Tribe of the Rocky Boy's Reservation	4	4.5%
Confederated Salish and Kootenai Tribes of the Flathead Reservation	30	33.7%
Crow Tribe of the Crow Reservation	14	15.7%
Fort Belknap Tribes of the Fort Belknap Reservation	14	15.7%
Fort Peck Tribes of the Fort Peck Reservation	19	21.3%
Little Shell Chippewa Tribe	0	0.0%
Northern Cheyenne Tribe of the Northern Cheyenne Reservation	1	1.1%
TOTAL	89	100%

Exhibit 39: Stakeholders reached through the MBO community leader survey[90]

Community Group[91]	Count	Percent
Adult education or literacy organization	3	3.2%
Advocacy group	0	0.0%
Chamber of Commerce	6	6.4%
Education organization serving pre-kindergarten through high school students	4	4.3%
Higher education organization	4	4.3%
Internet service provider	13	13.8%
Labor organization	3	3.2%
Local government	30	31.9%
Nonprofit organization	17	18.1%
Public health organization (including health clinics)	2	2.1%
Public library	8	8.5%
Religious or faith-based organization	0	0.0%
Tribal government	0	0.0%
Veterans' association (such as the American Legion)	0	0.0%
Agriculture*	1	1.1%
Economic Development Organization*	1	1.1%
State Government*	2	2.1%
TOTAL	94	100%

Exhibit 40: Community groups that are located on or that serve reservations, reached through the MBO community leader survey[92]

Reservation	Count	Percent
Blackfeet Tribe of the Blackfeet Reservation	1	1.1%
Chippewa Cree Tribe of the Rocky Boy's Reservation	2	2.1%
Confederated Salish and Kootenai Tribes of the Flathead Reservation	4	4.3%
Crow Tribe of the Crow Reservation	0	0.0%
Fort Belknap Tribes of the Fort Belknap Reservation	2	2.1%
Fort Peck Tribes of the Fort Peck Reservation	9	9.6%
Little Shell Chippewa Tribe	0	0.0%
Northern Cheyenne Tribe of the Northern Cheyenne Reservation	2	2.1%
No response/skipped	74	78.7%
TOTAL	94	100%

[89] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622
[90] Survey of Montana community leaders conducted by the MBO Sep-Oct 2022. N=94
[91] An asterisk (*) indicates an "other" response, not provided in the list of response options.
[92] Survey of Montana community leaders conducted by the MBO Sep-Oct 2022. N=94

Throughout the outreach process, there was a general sentiment that stakeholders are optimistic about the opportunities that will be provided by broadband expansion and efforts to close the digital divide. The state has considered which partnerships it will pursue as it implements its plans, and a number of potential partnerships—including with workforce agencies and educational institutions—are outlined in the implementation strategies in Section 5 in both the Digital Opportunity Plan and BEAD Five-Year Action Plan.

MBO is committed to maintaining and broadening engagement going forward. Since the initial outreach efforts, MBO has remained in contact with a broad set of stakeholders and will continue to engage them throughout the planning and implementation of both the Digital Opportunity and BEAD programs, including through the process of drafting the Initial Proposal and the application for Digital Opportunity funds.

MBO sends out regular updates to five thousand ARPA subscribers via email and will establish an IIJA-specific email distribution list in the future for newsletters and updates on meetings, trainings, and resources. The ConnectMT website will continue to be regularly updated with IIJA-specific information, including FAQs, for both providers and the general public. In addition, Communications Advisory Commission meetings to seek input on the BEAD and Digital Opportunity programs have been held monthly throughout the planning phase and are open to the public. These meetings served as a key source for collecting public comments on the Digital Opportunity Plan. The MBO also posted the Digital Opportunity Plan on the ConnectMT website for public comment and sent out several emails to its subscriber lists requesting public comments.

The MBO has developed a comprehensive plan to inform key stakeholders including local and regional leaders, covered populations, nonprofits, CAIs, labor unions and workforce development groups, state agencies, and Tribal groups on the progress of the Digital Opportunity program and gather input at different stages of program implementation. As part of its ongoing engagement efforts, the MBO creates tailored forums for select stakeholder groups, to ensure that their needs are being met and that their feedback is adequately elevated and addressed throughout the programs' implementation. When the MBO launches its digital opportunity grant program, it will also keep these stakeholder groups informed and encourage eligible applicants to apply. For example, workforce agencies, labor organizations, and institutions of higher education can play a key role in workforce development to ensure residents and workers possess the digital skills required for the modern economy.

The MBO has identified the following as primary communication channels for information about the Digital Opportunity programs: In-person and virtual informational and listening events, ConnectMT website and listservs, social media and press releases, and community champions. The MBO anticipates regional stakeholder briefings and one (1) roadshow a year. These activities will keep key stakeholders at all levels informed on the progress of the Digital Opportunity program.

The MBO anticipates using community champions as part of their larger stakeholder engagement approach. Communications Advisory Commission members, other elected officials, and representatives from other state agencies will be discussing the Digital Opportunity

programs as part of their constituent services. To ensure consistent messaging, the MBO will provide comprehensive talking points, sample presentations and resources on an ad hoc basis.

The MBO has also specifically conducted tribal outreach as part of its broadband initiatives in the past and will continue to do so in the future. The MBO's primary method of engagement has been through the organization of formal meetings. The MBO will continue tribal engagement through regular meetings which will be used to solicit general Tribal feedback on broadband deployment. All formal tribal consultation engagements will be documented with a Dear Tribal Letter, attendance list, and formal consultation summary report.

The MBO also intends to conduct a future survey of Montana residents on digital equity, similar to the engagement described in Section 7.1. The survey will serve as a benchmark to measure the progress made towards the short and long-term goals outlined in Section 2.1 and tailored to gain further insights into specific covered populations.

Finally, the MBO seeks to ensure that the Digital Opportunity Plan is coordinated with any local, regional, or Tribal broadband planning processes. The MBO is not aware of formal digital opportunity planning efforts at the local, Tribal, or regional level (see list of identified plans in Exhibit 10). However, the MBO has engaged key leaders at each of these levels throughout the Digital Opportunity planning process as noted above and will continue to do so throughout implementation. Any planning efforts to close the digital divide at the local, Tribal, or regional level will be identified and well-coordinated with BEAD and Digital Opportunity program efforts due to the detailed engagement plans that the MBO has established.

5 Implementation

5.1 Implementation strategy and key activities

There are four primary barriers to broadband adoption in the state of Montana:

I. Broadband availability

II. Service affordability

III. Device access

IV. Digital skills

While all those without adequate broadband face some combination of these barriers, those who fall into one or more covered populations often experience the greatest obstacles.

Comprehensive approaches to breaking down the barriers to adoption are particularly critical for those individuals who exist at the intersection of multiple covered populations. For example, there is considerable overlap between individuals who live in rural areas and individuals who are over the age of 65, and these people may experience the biggest gaps in both digital skills and broadband availability.

Although there are a number of digital opportunity assets at Montanans' disposal, as detailed in Section 3.1, these tools should be scaled to fully close the state's digital divide. To be more

effective and sustainable long-term, existing programs can be expanded and replicated, and new initiatives may be designed and pursued to more completely address the barriers to broadband adoption faced by Montana's residents.

As states across the nation develop and implement new strategies to promote digital opportunity, Montana will stay abreast of progress and incorporate successful initiatives into its own efforts as appropriate. For example, Vermont announced the launch of an apprenticeship program, which trains its state residents as technicians to build broadband infrastructure.[93] Montana, which has implemented its successful Registered Apprenticeship Program (see Section 2.2), may adopt some of the learnings from Vermont to upskill its residents into higher-paying jobs as technicians while also supporting Montana's broader goals of improving internet availability and keeping jobs in the state.

The state has outlined the main barriers to digital opportunity, the associated levers to pull to counter the associated challenges, and potential programs and strategies to close the digital divide for Montanans (Exhibit 41). The state will decide which strategies to deploy and the extent to which those strategies will be expanded and scaled based on available funding. Wherever possible, Montana will establish partnerships—some of which are proposed below—to implement the digital opportunity strategies efficiently and effectively. These partnerships may be with state agencies or other organizations (e.g., workforce agencies, higher education institutions, labor organizations, community organizations, non-profits, organizations that represent covered populations, housing authorities, civil rights organizations). Depending on the available funding, the MBO may run a competitive subgrantee process using funds from the NTIA Digital Equity Capacity Grant to achieve its goals of closing the digital divide. Details of any potential subgrantee process (e.g., how to apply, amount of funds available for each associated goal [affordability, literacy, device availability], timeline to apply) will be determined at a later date when the MBO is aware of when funds will be available through the Digital Opportunity Program. The MBO fully intends to work with outside organizations supporting the State's goals for digital opportunity, and these organizations will be made clearer when final funding and implementation planning can be carried out. Lastly, in order to promote sustainability of programs after Digital Opportunity Program funding is spent, the MBO will most likely prioritize either existing programs to add additional funding to, or programs that have funding from an additional source when Digital Opportunity Plan funding is expended.

Exhibit 41: Potential digital opportunity strategies

BEAD requirements

Barrier	Lever	Potential programming or opportunity	Existing efforts
Broadband availability	Home access	A. Connect the unserved: Last-mile and associated middle-mile deployment of broadband technologies to areas without service of at least 25/3 Mbps	✓
		B. Upgrade the underserved: Deploying and/or upgrading technologies to areas with service below 100/20 Mbps	✓

[93] Meeting the Broadband Workforce Challenge, Vermont Community Broadband Board, https://publicservice.vermont.gov/announcements/vcbb-announces-new-workforce-development-plan

Barrier	Lever	Potential programming or opportunity	Existing efforts
	Community access	C. Invest in community anchor institutions: Ensure reliable high-speed access at CAIs or identify opportunities in non-traditional CAIs	✓
Service affordability	Subsidize broadband	D. Increase ACP uptake: Identify and address barriers to uptake; educate, support and encourage uptake among eligible subscribers	
	Decrease service price	E. Offer low-cost plans: Partner with ISPs to develop and promote low-cost high-speed internet plans	✓
Device access	Device loans	F. Expand loan programs: Allow Montanans to rent devices for free or low cost from CAIs and state agencies	✓
	Device access points	G. Increase CAI access points: Partner with CAIs to create device access terminals in CAIs, taking advantage of the high-speed broadband and existing community access	✓
	Adequate State device inventory	H. Invest in additional state devices: To support the state's broader efforts—particularly in serving covered populations—Montana can increase its device inventory	✓
Digital skills	Build skills and confidence	I. Develop digital skills curricula: Partner to deploy basic, occupational digital training programs with state entities and targeted industries	✓
		J. Encourage targeted training programs: Establish partnerships to upskill individuals through classes and training programs, focusing on covered populations (e.g., aging individuals, individuals in rural areas, veterans)	

The timelines associated with the implementation strategies can be found in Section 5.2. Throughout the implementation plan, the State has identified potential partners to close the above barriers. In Exhibit 42 below, the MBO has summarized the number of programs to address the specified barriers for each covered population.

Exhibit 42: Potential digital opportunity strategies

Covered Population	Number of Initiatives	Partners
Individuals who live in covered households, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census	9	Montana State Library, Internet service providers, Montana Public Libraries, Office of Public Instruction, Office of the Commissioner of Higher Education, Department of Labor and Industry
Aging individuals	8	Department of Public Health and Human Services: State Unit of Aging, Strategic CAIs, Montana State Library, Montana Public Libraries, Department of Labor and Industry, Montana Chamber Foundation and Community Skills Initiative, health care facilities, rural health providers, Senior Centers
Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility	2	Montana Department of Corrections, Department of Public Health and Human Services, health care facilities

Veterans	9	Montana State Library, Service kiosks, Office of the Commissioner of Higher Education, Department of Labor and Industry, Montana Chamber Foundation and Community Skills Initiative, Department of Military Affairs, Veterans Affairs, Department of Public Health and Human Services, health care facilities
Individuals with disabilities	12	University of Montana MonTECH, Montana School for the Deaf and Blind, Montana State Library, Office of Public Instruction, Office of the Commissioner of Higher Education, Department of Labor and Industry, Montana Chamber Foundation and Community Skills Initiative, Department of Public Health and Human Services, health care facilities
Individuals with a language barrier, including individuals who are English learners and have low levels of literacy	8	Montana State Library, Montana Public Libraries, Office of Public Instruction, Office of the Commissioner of Higher Education, Department of Labor and Industry, Montana Chamber Foundation and Community Skills Initiative, Tribal College Libraries, Department of Public Health and Human Services, health care facilities
Individuals who are members of a racial or ethnic minority group	10	Montana State Library, Montana Public Libraries, Office of Public Instruction, Office of the Commissioner of Higher Education, Department of Labor and Industry, Montana Chamber Foundation and Community Skills Initiative, Tribal College Libraries, Office of Public Instruction and Department of Labor and Industry, Department of Public Health and Human Services, health care facilities
Individuals who primarily reside in a rural area	12	Montana State Library, Department of Public Health and Human Services: State Unit of Aging, Montana Rural Development State Office, Strategic CAIs, Montana Public Libraries, Office of Public Instruction, Office of the Commissioner of Higher Education, Department of Labor and Industry, Montana Chamber Foundation and Community Skills Initiative, Montana Rural Development State Office, Department of Public Health and Human Services, health care facilities, rural medical providers

The following covered populations will be referenced by their respective letter in exhibits throughout this section.

a. Individuals who live in covered households, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census
b. Aging individuals
c. Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility.
d. Veterans
e. Individuals with disabilities
f. Individuals with a language barrier, including individuals who are English learners and/or have low levels of literacy.
g. Individuals who are members of a racial or ethnic minority group
h. Individuals who primarily reside in a rural area

I. Broadband availability

A lack of broadband availability is cited as the primary challenge to internet access faced by the majority of Montanans. The BEAD Initial Proposal puts forth a detailed approach to establishing the infrastructure necessary—both at homes and in communities—to bring high-speed internet to Montana, which includes connecting the unserved, connecting the underserved, and prioritizing access to Community Anchor Institutions. All activities to improve broadband availability will be funded through the BEAD program, as well as other state and federal funding programs. While the Digital Opportunity program will not focus on broadband availability, it has been included here to highlight the comprehensive approach MBO is taking to address barriers to adoption of high-speed internet.

Given the state's low population density and vast size, many residents live in medical and education deserts, where they face outsized challenges to accessing these critical services without driving long distances. Making high-speed broadband widely available will allow Montanans to remotely access these services, saving them time and money, while encouraging more frequent and meaningful engagement.

A. Connect the unserved

Barriers and gaps

According to a 2021 BroadbandNow report, Montana is ranked last in high-speed internet availability nationally.[94] Thirteen percent of Montanans are unserved, largely due to a lack of infrastructure given the large size and low population density, in addition to the challenging terrain of the mountains and plains.[95] There are some efforts that are ongoing (e.g., implementation of ARPA funds), however the programs that exist will not be enough to close the current unserved gap. Without critical BEAD funding, it will take a much longer period of time for ISPs to build out to these locations, and a possibility that they may not build out to these locations at all.

Activities

Within the parameters of BEAD, Montana's priority in broadband deployment is to reach the state's numerous unserved and underserved areas. The program's main focus is on deploying broadband service to unserved locations (those without any broadband service at all or with broadband service offering speeds below 25 Mbps downstream/3 Mbps upstream).

Given the large number of unserved and underserved locations spread across the state, Montana may not have sufficient funding to connect all unserved and underserved locations with fiber.

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[94] Montana Internet Coverage & Availability in 2022, BroadbandNow, https://broadbandnow.com/Montana

[95] Service availability based on FCC Broadband Map as of November 18, 2022. Values for served, underserved, and unserved locations reflect location totals when project areas / locations to be served by RDOF, CAFII, NTIABIP, ReConnect (prior to May 2023) and RUS are considered served. Locations to be served under additional funding sources (ARPA funds, USDA Reconnect after May 2023) are not currently counted as served (will be updated in the initial proposal, if applicable).

Cost analyses will be refined to determine the ideal mix of broadband infrastructure—potentially including fiber and fixed wireless—to bring high-speed internet access to unserved Montanans in areas that were previously lacking adequate broadband.

Key activities include:

- Determine priority unserved locations.
- Select ISP sub-grantees to build necessary infrastructure.
- Deploy priority projects.
- Deploy remaining projects.
- Monitor the number of unserved households over time to track progress against goals.

Goals and measurements:

The main goal of this effort will be to decrease the percentage of unserved locations from the initial baseline measure of twenty-two percent.[96] To track progress, ISP subgrantees will report back as they build the supporting broadband infrastructure, and the information can be validated via the FCC National Broadband Map. Additionally, the State will track adoption rates of broadband internet by covered populations group to track if after broadband internet is made available, it is being adopted by target populations. If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 43: Connect the unserved goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase the availability of, and affordability of access to, fixed and wireless broadband technology	Percent of unserved locations	22%	18%	0%	FCC National Broadband Map	Every 6 months	Chief Data Officer

[96] Service availability based on FCC Broadband Map as of November 18, 2022. Values for served, underserved, and unserved locations reflect location totals when project areas / locations to be served by RDOF, CAFII, NTIABIP, ReConnect (prior to May 2023) and RUS are considered served. Locations to be served under additional funding sources (ARPA funds, USDA Reconnect after May 2023) are not currently counted as served (will be updated in the initial proposal, if applicable).

B. Upgrade the underserved

Barriers and gaps

Montana plans to provide high-speed internet access to the state's numerous underserved locations (those without broadband service offering speeds of 100 Mbps downstream/20 Mbps upstream). Across the state of Montana, 10% of locations are underserved.[97] As noted in Section 3.2.1, geography and topography pose significant challenges to building out the infrastructure necessary for high-speed internet, which has resulted in a large, underserved population. There are some efforts that are ongoing (e.g., implementation of ARPA funds), however the programs that exist will not be enough to close the current underserved gap. Without this critical federal funding, it will take a much longer period of time for ISPs to serve these locations, and a possibility that they may not build out to these locations at all.

Activities

Through the BEAD Five-Year Action Plan, the state will deploy a mix of technologies, prioritizing fiber as much as possible, but also potentially including fixed wireless or other alternative technologies, to make adequate broadband available to underserved Montanans. Cost analyses will be conducted and refined to determine the optimal mix of technology to Montana's underserved population. Preliminary analysis estimates that it would cost approximately $830 million to provide fiber internet to all underserved and unserved locations in Montana.[98] On June 26, 2023, The Department of Commerce's National Telecommunications and Information Administration (NTIA) announced that the state of Montana would be allocated $628,973,798.59 in BEAD funding as part of its "Internet for All" initiative.[99]

Key activities include:

- Determine priority underserved locations.
- Select sub-grantees to build necessary infrastructure.
- Deploy priority projects.
- Deploy remaining projects.

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[97] Service availability based on FCC Broadband Map as of November 18, 2022. Values for served, underserved, and unserved locations reflect location totals when project areas/locations to be served by RDOF, CAFII, NTIABIP, ReConnect (prior to May 2023) and RUS are considered served. Locations to be served under additional funding sources (ARPA funds, USDA Reconnect after May 2023) are not currently counted as served (will be updated in the initial proposal, if applicable).
[98] Service availability based on FCC Broadband Map as of November 18, 2022. Cost data provided by BroadbandLab licensed data provider as of November 18, 2022
[99] Biden-Harris Administration Announces State Allocations for $42.45 Billion High-Speed Internet Grant Program as Part of Investing in America Agenda, June 26, 2023, Internet For All, https://internetforall.gov/news-media/biden-harris-administration-announces-state-allocations-4245-billion-high-speed-internet

- Monitor the number of underserved households over time to track progress against goals.

Goals and measurements

The main goal of this effort will be to decrease the percentage of underserved locations from the initial baseline measure of 10 percent.[100] If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 44: Upgrade the underserved goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase the availability of, and affordability of access to, fixed and wireless broadband technology	Percent of underserved locations	10%	6%	0%	FCC National Broadband Map	Every 6 months	Chief Data Officer

C. Invest in Community Anchor Institutions

Barriers and gaps:

CAIs provide a number of critical services to their communities, including broadband access. One report noted that 24 percent of the state's public libraries report that they are the sole source of free Wi-Fi in their communities.[101]

Given the importance of CAIs in providing services for Montanans, a focus on delivering high-speed internet to CAIs will have an outsized impact on achieving the state's broader goals.

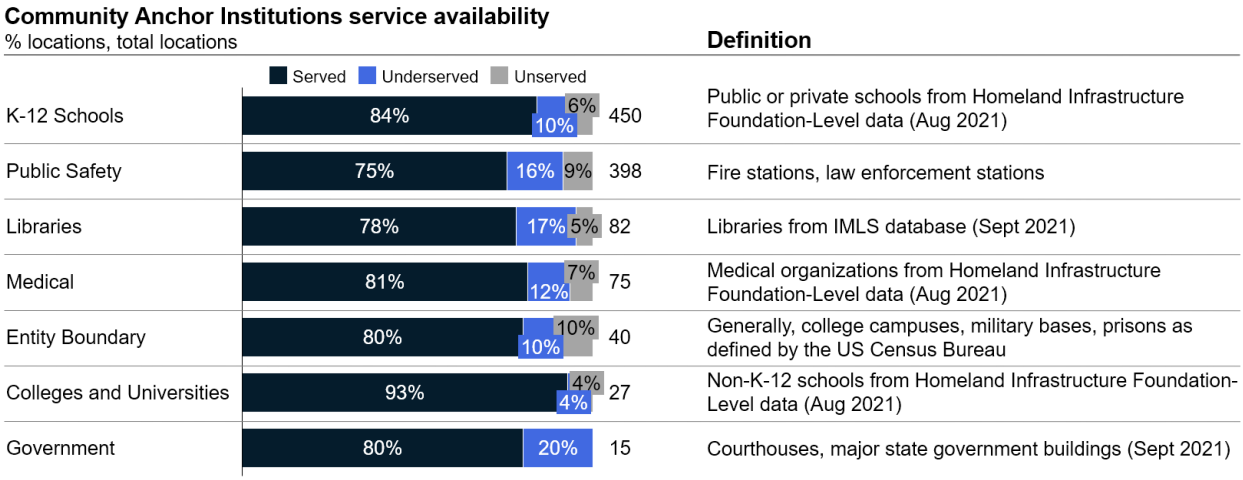
[100] Service availability based on FCC Broadband Map as of November 18, 2022. Values for served, underserved, and unserved locations reflect location totals when project areas / locations to be served by RDOF, CAFII, NTIABIP, ReConnect (prior to May 2023) and RUS are considered served. Locations to be served under additional funding sources (ARPA funds, USDA Reconnect after May 2023) are not currently counted as served (will be updated in the initial proposal, if applicable).
[101] The State of Broadband Connectivity and Related IT Infrastructure in Montana's Public Libraries, Simmons University School of Library and Information Science, Rhinesmith, Dutilloy, Kennedy, March 2020, https://docs.msl.mt.gov/central_services/publications/SimmonsReport_BroadbandConnectivity.pdf

Currently available data indicates that 20 percent of CAIs are underserved or unserved, posing serious obstacles in rural areas where broadband availability is generally low, and the local communities are most likely to rely on CAIs for internet access and other important services.[102]

Most Montana public libraries serve fewer than 50,000 people, and 98 percent of those institutions report broadband speeds below 100 Mbps download, and significantly below the NTIA's target speed of 1 Gb symmetrical.[103] As the State completed its BEAD Initial Proposal, the MBO compiled an inventory of CAIs, which includes details regarding speeds available at each CAI, where available. Even where high-speed internet is available, in some cases libraries cannot offer high-speed internet to patrons due to outdated internal wiring.

Public safety and entity boundary locations (such as college campuses, military bases, and prisons) have the highest rate of unserved locations at nine percent and ten percent, respectively. On the other hand, schools, including K-12 and colleges and universities, have relatively higher percentages of served locations, with 84 percent and 93 percent of locations served, respectively (see Exhibit 45).

Exhibit 45: Service availability at Community Anchor Institutions[104]



CAIs can benefit from speeds as high as 1 Gbps to provide robust access to its patrons, however, a 2020 report published by the Montana State Library shows that just one library has service approaching that speed (see Exhibit 46 and Exhibit 47).

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[102] Service availability and cost data provided by BroadbandLab licensed data provider as of November 18, 2022. Served, underserved and unserved follow normal location guidelines (100/20 and 25/3 standards). To date, data does not measure gigabit service to CAIs.
[103] The State of Broadband Connectivity and Related IT Infrastructure in Montana's Public Libraries, Simmons University School of Library and Information Science, Rhinesmith, Dutilloy, Kennedy, March 2020, https://docs.msl.mt.gov/central_services/publications/SimmonsReport_BroadbandConnectivity.pdf
[104] Service availability and cost data provided by BroadbandLab licensed data provider as of November 18, 2022; Served, underserved and unserved follow normal location guidelines (100/20 and 25/3 standards). To date, data does not measure gigabit service to CAIs.

Exhibit 46: Montana libraries with fastest download speeds[105]

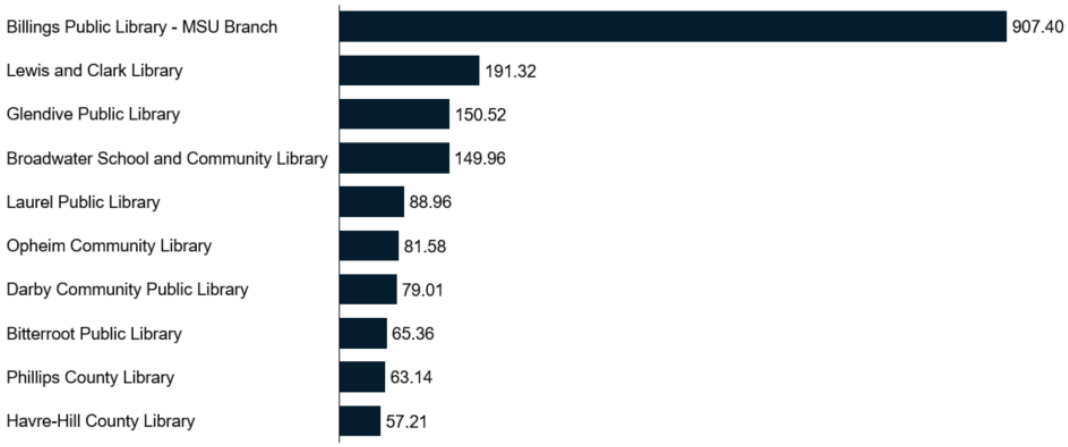
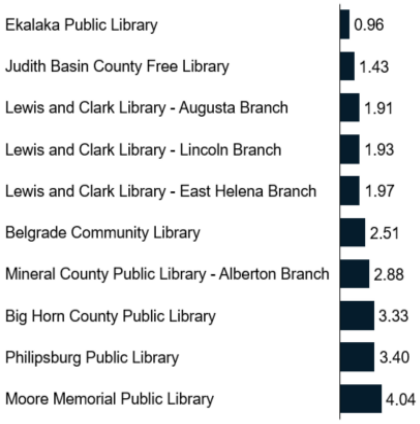


Exhibit 47: Montana libraries with slowest download speeds[106]



There are some efforts that are ongoing that support bringing high speed availability to remaining CAIs (e.g., implementation of ARPA funds), however the programs that exist will not be enough to close the current unserved and underserved gap.

Activities

CAIs represent a wide variety of public and private institutions across the state that can serve as a gateway to universal broadband access. CAIs, like libraries and community centers, often serve

[105] The State of Broadband Connectivity and Related IT Infrastructure in Montana's Public Libraries, Simmons University School of Library and Information Science, Rhinesmith, Dutilloy, Kennedy, March 2020, https://docs.msl.mt.gov/central_services/publications/SimmonsReport_BroadbandConnectivity.pdf

[106] The State of Broadband Connectivity and Related IT Infrastructure in Montana's Public Libraries, Simmons University School of Library and Information Science, Rhinesmith, Dutilloy, Kennedy, March 2020, https://docs.msl.mt.gov/central_services/publications/SimmonsReport_BroadbandConnectivity.pdf

as hubs for individuals to access free high-speed internet, as they are usually equipped with faster speeds than are available elsewhere in communities.

BEAD recognizes the unique nature of different communities and has granted states license to determine their own definitions of CAIs. Given Montana's geography and low population density, the state may deem a variety of untraditional locations to be CAIs in remote areas.

Beyond providing community broadband access, prioritizing adequate service to CAIs will enable these institutions to establish and expand device access and loan programs.

The BEAD Five-Year Action Plan may prioritize bringing infrastructure to underserved and unserved CAIs or increasing existing service to higher speeds that support broader, community-supporting activities. However, given the BEAD requirement of first reaching all unserved and underserved locations, upgrading service to CAIs will be dependent on the availability of funding.

Key activities include:

- Determine priority CAIs.
- Select ISP sub-grantees to build necessary infrastructure.
- Deploy priority projects.
- Deploy remaining projects.
- Monitor the number of CAIs over time to track progress against goals.

Goals and measurements

The State may establish a goal to serve every CAI, and to measure success, ISP subgrantees can report back on their progress of building the supporting broadband infrastructure. CAIs can also report their upload and download speeds to track progress over time.

Montana may also set goals to make higher speeds available to CAIs, which may be tracked over time.

Additionally, the State will track service availability at state and local incarceration facilities in order for the covered population to have high speed internet under approved supervision / learning purposes.

If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 48: Invest in Community Anchor Institutions goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase the availability of, and affordability of access to, fixed and wireless broadband technology	Percent of state and local incarceration facilities unserved or underserved	20%	16%	0%	FCC National Broadband Map	Every 6 months	Chief Data Officer
	Percent of un- and underserved CAIs	20%	16%	0%	FCC National Broadband map	Every 6 months	Chief Data Officer

II. Service affordability

After broadband availability, affordability is the second greatest barrier to internet access faced by Montanans, as 16.8 percent of Montanans without high-speed internet cited lack of affordability as the primary reason for their inadequate internet access.[107] Low income is strongly correlated to the affordability barrier: 35 percent of Montana households with an income under $20,000 do not have broadband at home, versus 17 percent for households with incomes $20,000-75,000, and five percent of those earning above $75,000.[108]

To improve affordability in the state, Montana can consider two main strategies—increasing ACP uptake and partnering with ISPs to provide additional low-cost service plans.

D. Increase ACP uptake

Barriers and gaps

As detailed in Section 3.2.3, Montana has a high rate of ACP eligibility, but a bottom quartile rate of ACP uptake. Nearly a third of Montanans live in households with income below 200 percent of the federal poverty line, which makes them eligible for ACP enrollment. However, at least 72% of eligible Montanans have not enrolled in the program, putting the state 40th in national ACP enrollment. At just 28 percent, Montana's ACP enrollment is below the national ACP enrollment average of 41 percent, which presents an opportunity for Montana to focus on increasing ACP enrollment to help ease the burden of cost for a large swath of its population. While there are programs that support affordability of internet service or limited availability (e.g., Co-op broadband, FCC Lifeline Program) there are not programs to the MBO's knowledge that support the promotion of ACP uptake. There is an opportunity for new or additional funding to help support this need.

Activities

[107] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622
[108] ACS 5-Year Estimates, US Census Data, 2021, https://data.census.gov/table?q=internet&g=040XX00US30&tid=ACSST5Y2021.S2801

The state of Montana can help its residents take advantage of the ACP by increasing awareness and assisting eligible households in the enrollment process. Potential approaches to promote ACP adoption include:

Partnerships with non-governmental organizations: Montana could consider engaging a non-governmental organization that focuses on public engagement to increase adoption of public services to promote ACP adoption throughout the state.

State agency partnerships: The state could coordinate with other state agencies to raise awareness and adoption. In early 2022, New York launched a multi-state agency that used six agencies to target their respective served populations to increase ACP uptake. The agencies used their regular interactions and service provision to educate and support residents—for example, the DMV distributed ACP sign-up information with drivers' licenses. This effort increased ACP participation by 100,000 families.

Montana could pursue similar partnerships to take advantage of existing touchpoints:

- Department of Motor Vehicles can provide ACP information and enrollment support when individuals get their drivers' licenses.
- Montana Fish, Wildlife, and Parks can share ACP brochures when individuals purchase licenses, targeting rural populations.
- Montana Department of Public Health and Human Services could provide information on ACP eligibility in the context of telehealth access during healthcare visits, reaching aging individuals.
- Veterans Affairs can help veterans sign up for ACP when providing other services.

Community Anchor Institution partnerships: As CAIs will play a central role in various strategies to close the digital divide—for example, by providing free access points and device lending programs—Montana may also enlist these institutions to promote ACP awareness and assist in sign-ups. Libraries and K-12 institutions may be ideal partners. The Montana State Library indicated interest in supporting these efforts, noting that Digital Navigators, a program used to assist with technical training, assistance, and support, could be used by CAIs, including libraries, to assist Montanans in completing their ACP applications.

ISP partnerships: Montana could work with all sub-grantees as well as partner with other ISPs in the state to promote ACP to their eligible customers, particularly those that ask about low-cost plans.

Key activities include:

- Select ACP-eligible target populations.
- Establish partnerships with non-governmental organizations, state agencies, CAIs, and ISPs.

- Provide individuals with relevant information about the ACP and support them through the enrollment process.
- Track the number of eligible Montanans who sign up for the ACP over time.

Goals and measurements

To measure the effectiveness of this effort, Montana can measure the percentage uptake of eligible households, which is tracked and made publicly available weekly by the Universal Service Administrative Company. Additionally, the State will perform a survey of Montana Residents (similar to survey described in section 7.1) to understand if Montana residents are aware of benefits like ACP that are available to them. During the survey, if residents don't know that this is a benefit offered to them, they will be informed of how they may qualify. If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 49: Increase ACP uptake goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase the availability of, and affordability of access to, fixed and wireless broadband technology	Percent of eligible households enrolled in the Affordable Connectivity Program (ACP)	28%	32%	58% (current highest ACP uptake across all states)	USAC data	Every 6 months	Program Coordinator
	Percent of households with aging individuals who are aware of internet subsidy programs, such as ACP or the Emergency Broadband Benefit (EBB), to help cover monthly internet costs for qualifying households	29%	33%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of households with veteran individuals who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	26%	30%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of households with individuals with disabilities who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	36	40%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of households with non-native English speakers who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	26	30%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of households with a racial or ethnic minority who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs	34%	38%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	for qualifying households						
	Percent of rural households who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	30%	34%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of previously incarcerated individuals who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	0%	31%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of covered households who are aware of internet subsidy programs, such as ACP or EBB, to help cover monthly internet costs for qualifying households	0%[109]	31%	58%	Survey of Montana Residents	Every 2 years	Chief Data Officer

E. Offer low-cost plans

Barriers and gaps

According to BroadbandNow, in 2021, Montana ranked 49th in access to affordable high-speed internet plans, as only 62 percent of households had access to wired plans, including DSL, copper, cable, or fiber, of 25 Mbps download/3 Mbps upload or higher and a standalone broadband speed plan that is $60/month or less.[110]

As detailed in Section 3.2.1, affordability is a significant barrier to access for certain covered populations, including aging individuals, individuals with disabilities, and racial or ethnic minorities, whose willingness to pay for high-speed internet is generally lower than other populations. ISPs participating in BEAD will need to offer low-cost plans to participate and additional funding from the Digital Opportunity Plan could help advertise the availability of these plans to new customers.

[109] Baseline survey was not able to cut by this covered population; baseline will be fully established during next survey run.
[110] Best and Worst States for Internet Coverage, Prices and Speeds, BroadbandNow, Cooper and Tanberk, 2021, https://broadbandnow.com/research/best-states-with-internet-coverage-and-speed

Activities

BEAD requires ISP sub-grantees to offer low-cost plans, which will increase broadband affordability in the state.

Key activities include:

- Establish a definition of low-cost plans.
- Select subgrantees who meet or exceed the state's defined threshold for low-cost plans.
- Track the number of low-cost plans made available to Montanans and how many Montanans in BEAD-funded areas are on low-cost plans.

Goals and measurements:

The state may track the number of low-cost plans available to its residents in BEAD-funded areas. Through BEAD, ISPs will need to offer affordable plans and will need to report how many residents are on an affordable plan. In the semiannual review process, the State will evaluate the uptake of affordable plans. If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 50: Offer low-cost plans goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase the availability of, and affordability of access to, fixed and wireless broadband technology	Percent uptake of affordable plans in BEAD-funded areas	0%	32% (same as ACP uptake target)	58% (same as ACP uptake target)	ISP submissions	Every 6 months	Program Coordinator

III. Device access

Access to internet-capable devices is necessary for Montanans to engage in meaningful broadband use. Devices can be cost-prohibitive, and Montanans who are less comfortable using the internet may choose to forgo purchasing devices altogether.

As noted in Section 3.2.1, individuals who are members of covered populations have lower rates of access to internet-capable devices than their counterparts. In the absence of these devices, they are unable to access the internet and its resources at home or on the go.

By increasing residents' device access through two main strategies—loaning programs and public access points—Montana's citizens can become familiar with equipment and access the myriad benefits of the internet.

Further, Montana may prioritize ensuring that state agencies have adequate internet-capable device inventories, without which the state will be unable to pursue its broader efforts and serve its residents.

F. Expand CAI and state agency device loans

Barriers and gaps

Up to 30 percent of some covered populations in Montana, like racial or ethnic minorities (in particular Native Americans), do not have access to internet-capable devices at home. Instead, many rely on device loaning programs, which, as noted in Section 3.1 are often hosted by libraries or other community anchor institutions. Students often borrow devices from their schools, and home-schooled students may utilize device lending programs hosted by libraries. These popular loaning initiatives may be expanded by the state and replicated in additional locations. Funding does not currently exist to expand current programs or jumpstart new programs in different areas of need, and funding from the Digital Opportunity Plan may be used to solve this gap.

The Digital Opportunity funding will play a pivotal role in enhancing device accessibility by providing essential financial support for subsidizing device loans and ensuring an ample supply of devices for individuals seeking loans. The funding would impact several covered populations, including Native Americans, that do not all have internet-capable devices. By tracking the following metric over time, changes can be made to ensure the most effective use of funds.

Activities

Existing initiatives may be expanded to serve Montanans, particularly those who are members of covered populations. Further, device rental or subsidized device programs may be created to fill gaps, like those experienced by both seniors and rural populations.

State agencies could be ideal partners for these loan programs, given their regular access to target populations, as could CAIs, which are already frequented regularly by community members who need to access broadband outside of their homes or take advantage of the other benefits provided by CAIs (Exhibit 51). Some internet service providers also offer free or low-cost devices to eligible subscribers (e.g., ACP or low-cost plan participants), which could be further scaled.

Exhibit 51: Potential Montana device loaning partnerships and programs

Existing program

Partner	Program	Served population	Action
University of Montana MonTECH	Assistive equipment rental	e	Replicate program at strategic CAIs and healthcare facilities to expand service to individuals with disabilities throughout the state
Montana School for the Deaf and Blind	Assistive equipment rental	e (students)	This population requires specialized equipment and is spread out thinly around the state; Increase funding to purchase more devices and support staff to travel to

Partner	Program	Served population	Action
			these individuals to lend equipment and provide training
Montana Department of Corrections	Chromebook and tablet loans	c	Purchase additional devices, which individuals can use—with proper firewalls—in their cells and around facilities to pursue educational and vocational training
Montana State Library	Hotspot lending program	a, b, d, e, f, g, h	Invest in additional hotspots and other internet-capable devices (e.g., laptops, tablets), and implement this lending program at all public libraries in Montana, scaled to serve respective populations
Montana State University	Technology checkouts	b, d, e, f, g, h	Replicate this program at other HE and K-12 institutions to allow students to check out equipment including hotspots, laptops, and tablets
Department of Public Health and Human Services: State Unit of Aging	Device lending programs	b, h	For populations who are less comfortable with technology, device loaning programs may provide an opportunity to familiarize themselves with the equipment and develop an interest in more robust use
Montana Rural Development State Office	Device lending programs	h	
Strategic CAIs	Device lending programs	b, h	
Internet service providers	Free or subsidized device programs	a	Some internet providers provide devices at low or no cost for eligible subscribers (e.g., as part of ACP or other low-cost plans)

Key activities include:

- Catalog existing CAI loan programs and determine their needs or opportunities for expansion.
- Identify additional CAI locations where loan programs should be established and determine their equipment needs.
- Provide funding for or purchase internet-capable devices in bulk to reduce the total cost to the state.
- Provide the equipment to CAIs.
- Track the initiatives' success over time through need fulfillment.
- Add or remove devices as needed.

Goals and measurements

The partners hosting loan programs can measure the success of these initiatives by tracking the percentage of need met. For example, if a library invests in two tablets, but needs four tablets available to meet patrons' demand each day, that library would record 50 percent need met. Additionally, the State will perform a survey of Montana Residents (similar to survey described in section 7.1) to understand how Montana residents' device needs are changing over time. If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 52: Expand CAI and state agency device loans goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase the availability of, and affordability of access to, fixed and wireless broadband technology	Percent of community need fulfilled (# of devices available/# of devices needed)	0%	50%	90%	CAI directors	Every 6 months	Program Coordinator
	Percent of aging individuals who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	93%	95%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of veteran individuals who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	94%	96%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals with disabilities who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	94%	96%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of non-native English speakers who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	96%	98%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of racial or ethnic minorities who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the	93%	95%	97%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	internet at home or somewhere else						
	Percent of rural individuals who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	95%	97%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of formerly incarcerated individuals who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	0%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals in covered households who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	0%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

G. Increase CAI device access points

Barriers and gaps

As detailed in Section 3.2.1, adoption is lacking to different extents among covered populations and their counterparts in Montana.

To provide Montanans with greater device access, the state may strategically place device access points in CAIs. Not only can this initiative improve connectivity, but it can also support the state's broader goals.

There are a few libraries and higher education institutions that have similar programs to loan out devices, however funding does not currently exist to expand or replicate these programs throughout the state. Additional funding could allow these programs to expand, supporting more individuals and potentially to jumpstart programs in new locations.

The Digital Opportunity funding will facilitate the expansion of CAIs as device access points by supplying devices to locations that currently lack them and increasing the quantity available in each location. Given the limited number of existing device access points, the Digital Opportunity

funds are essential for enhancing options in closer proximity, specifically to Montanans that reside in rural areas. By tracking the following metrics over time, changes can be made to ensure the most effective use of funds.

Activities

Libraries could be a natural fit to establish and expand device access points, as many are already used for internet access and may have increased broadband speeds after the implementation of the BEAD Five-Year Action Plan (Exhibit 53).

These devices could be equipped with software that enables access for individuals with disabilities, which may include text reading software for those with hearing impairments.

Exhibit 53: Existing and potential device access point initiatives

Existing program

Access type	Served population	Partner	Location	Function
Service kiosks	d	Department of Military Affairs; Veterans Affairs	Select public libraries, Local VFWs, American Legion Offices, Veterans Retirement Office	Support veterans in accessing healthcare and VA benefits
Computer terminals	C	Department of Corrections	State prisons	Teleconference with lawyers; telehealth; virtual court attendance, educational/vocational training
Laptops and tablets	a, d, e, f, g, h (students)	Office of Public Instruction, Office of Commissioner of Higher Education	K-12 schools, community colleges, other higher education institutions	Digital skills trainings; STEM curriculum
Computer terminals, laptops, and tablets	a, b, d, e, f, g, h	Montana's Public Libraries	Public libraries across the state	Homework, education, telemedicine, research, connecting with family/friends, and digital skill building

Key activities include:

- Catalog existing CAI device access points and determine their needs or opportunities for expansion.
- Identify additional CAI locations where device access points should be established and determine their equipment needs.
- Purchase internet-capable devices in bulk to reduce the total cost to the state.
- Provide the equipment to CAIs.
- Track the initiatives' success over time through device utilization.
- Add or remove devices as needed.

Goals and measurements

The partners hosting device access points can measure the success of these initiatives by tracking the percent of need met. For example, if a library invests in two tablets, but needs four tablets available to meet patrons' demand each day, the library would have recorded 50 percent need met. Additionally, the State will perform a survey of Montana Residents (similar to survey described in section 7.1) to understand how Montana residents' device needs are changing over time. If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 54: Increase CAI device access points goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase the availability of, and affordability of access to, fixed and wireless broadband technology	Percent of community need fulfilled (# of devices available/# of devices needed)	0%	50%	90%	CAI directors	Every 6 months	Program Coordinator
	Percent of aging individuals who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	93%	95%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of veteran individuals who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	94%	96%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals with disabilities who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	94%	96%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of non-native English speakers who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the	96%	98%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	internet at home or somewhere else						
	Percent of racial or ethnic minorities who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	93%	95%	97%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of rural individuals who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	95%	97%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of previously incarcerated individuals who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	0%[37]	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals in covered households who use at least two devices (among desktop/laptops, tablets or smartphone/cellphones) to connect to the internet at home or somewhere else	0%[37]	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

H. Establish adequate state device inventory

Barriers and gaps

A number of state agencies in Montana report inadequate internet-capable devices to serve their constituents. For example, the Montana Department of Public Health and Human Services noted that they need additional tablets equipped with dictation services for staff to use during on-site visits. More broadly, results from Montana's Remote Office Workspace Study show unreliable computer applications and unstable internet connections as two main telework

inhibitors.[111] Without reliable high-speed internet, State employees are unable to take advantage of remote work opportunities.

More generally, the broader efforts of the state—including expansion of telehealth and remote learning—require devices for use by state employees. Healthcare providers and teachers need access to computers to perform telehealth visits or teach classes.

The challenges that covered populations face due to lack of access to basic services like telehealth or remote learning cannot be remedied unless both sides of the equation—the providers and the end users—have adequate access to broadband and internet-capable devices.

While limited funding for Montana state agencies exists today for technology needs, additional funding will help Montana close the gap in underfunded departments and better serve Montana constituents of all backgrounds.

Activities

Montana can collaborate with state agencies to understand their needs for device access and purchase the necessary equipment to fill the existing gaps.

Key activities include:

- Determine state agencies' device needs through interviews and surveys.
- Purchase equipment and software in bulk.
- Distribute devices to state agencies and monitor impact.

Goals and measurements

The success of this initiative may be measured by the percent of state agency need met. The State will correspond with leaders of each Montana department annually to understand their device needs over time and how to close the device gap needs across Montana government agencies. If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 55: Establish adequate state device inventory goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase the availability and affordability of computing devices and technical	Percent of state agency need fulfilled (# of devices available/# of devices needed)	0%[112]	80%	100%	Assessment from agency leaders	Every 12 months	Program Coordinator

[111] Montana Remote Office Workspace Study, June 2022
[112] Full agency will be determined during implementation of activities.

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
support for those devices							

IV. Digital skills

Even with accessible, affordable broadband and the proper internet-capable devices, Montanans cannot engage in meaningful internet use without adequate digital skills.

Data and state agency interviews suggest that many Montanans, including elderly individuals, veterans, and those who live in rural areas may benefit from additional digital skills training.

As evidenced by the asset inventory in Section 3.1, there is room to create and expand initiatives to promote digital skills. To meet the state's need, Montana may consider two potential approaches: developing digital skills curricula to be deployed through existing state agencies and partners, and funding targeted training programs to serve covered populations in need.

For both of these potential approaches, the state will establish partnerships to create and administer the appropriate digital skills trainings.

I. Develop digital skills curricula

Barriers and gaps

While Montana state agencies currently direct both formal and informal programs that provide digital skills training in different ways, there are still considerable gaps in ability that can be filled by expanding and strengthening these efforts.

Montana's pursuit of its broader goals, detailed in Section 2.2., can be supported by strengthening the digital skills of both state employees and residents more widely. For example, as the Montana Department of Public Health and Human Services continues to pursue the expansion of telehealth availability and use, healthcare workers and patients alike need to develop adequate digital skills. Healthcare providers need to become comfortable administering their services over digital platforms, and their patients need the proper skills to confidently access their telehealth appointments.

Montana will identify state agency partners who can develop and administer curricula to their respective staff and the populations they serve. Instead of starting from scratch, the MBO may also help identify curricula that has been developed by various organizations across the country which may be applicable to the Montana context.

While there are programs in Montana trying to solve this gap today (e.g., Montana State Library, Montana State University, Montana Department of Labor and Industry) additional funding will help increase the size and efficacy of the programs throughout the state. Additionally, a competitive subgrantee process may jumpstart additional organizations to step up and help solve the gap within Montana. Digital Opportunity funding will enable additional curricula to be created and administered with new and existing partners, expanding digital literacy

opportunities for those in need. By tracking the following metrics over time, changes can be made to ensure the most effective use of funds.

Activities

Montana can take an inventory of its existing efforts, consider the broader goals of the state, and then prioritize which initiatives to formalize and expand through strategic partnerships. A representative sample of potential partners, programs, training purposes, and target populations can be found in Exhibit 56 below. The State will potentially engage with the described organizations to further develop digital skills curricula, including the Office of the Commissioner of Higher Education (a higher learning institution) to expand their digital skills training opportunities; the Department of Labor and Industry (a state workforce agency) to provide necessary digital skills training and fill labor gaps through existing apprenticeship programs; and the Montana Chamber Foundation and Community Skills Initiative (a community-based labor organization) to expand upon courses that teach basic computer skills.

Exhibit 56: Potential digital skills curricula

Existing program

Target population		Partner	Program and training purpose
Students (a, e, f, g, h, covered populations)	K-12	Office of Public Instruction	K-12 Digital Literacy and Computer Science Guidelines help students develop strong, foundational digital and STEM skills, and may be expanded
	Higher education	Office of the Commissioner of Higher Education (OCHE)	OCHE, which has prioritized preparing students for jobs in STEM, technology, and other sectors that require advanced digital literacy, can expand digital skills training opportunities
Job seekers (a, b, d, e, f, g, h, covered populations)		Department of Labor and Industry	DLI can position Montanans to secure employment that by providing the necessary digital skills training and filling labor gaps through existing initiatives, including Montana's Registered Apprenticeship Program and Accelerate Montana
		Montana Chamber Foundation and Community Skills Initiative	The Digital Literacy and Productivity course provides fundamental computer skills to Montanans, and may be expanded or used as a foundation for additional skills-building initiatives
Healthcare workers (a, b, c, d, e, f, g)		Department of Public Health and Human Services, health care facilities, rural medical providers	State agencies, (e.g., DPHHS), health care facilities, and rural medical providers can be consulted to determine their capacity to support training for healthcare workers and their patients to learn how to use telehealth and EHRs
Government personnel		State agencies	As state agencies respond to the Governor's Digital First initiative, they can also empower government employees to utilize the new digital platforms to increase productivity and efficiency

Key activities include:

- Catalog existing initiatives.
- Identify additional opportunities.
- Partner with state agencies, who will create and administer the curricula, leveraging best practices observed in similar contexts.

- Track the number of individuals who receive training over time.

Goals and measurements

For each effort, the administering partner or agency may set a target number of individuals to receive training and monitor their progress on an ongoing basis. The partner agencies will report back to the State on progress and the number of covered population individuals who are reached. Additionally, the State will perform a survey of Montana Residents (similar to survey described in section 7.1) to understand how Montana residents' computer skills are increasing or decreasing over time. If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 57: Develop digital skills curricula goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase digital literacy and increase the awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect to, an individual	Number of individuals in covered populations reached through new or expanded digital skills program	0	2,226[113]	8,905[114]	Summary from digital skills program subrecipients	Every 12 months	Program Coordinator
	Percent of aging individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	89%	91%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of veteran individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	91%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals with disabilities confident in computer skills abilities, such as saving downloaded	87%	89%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

[113] Based on 0.25% of the total number of individuals part of a covered population
[114] Based on 1% of the total number of individuals part of a covered population

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	files, opening downloaded files and searching for information online						
	Percent of non-native English speaker individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	83%	85%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of racial or ethnic minorities confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	91%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of rural individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	90%	92%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of formerly incarcerated individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	0%	85%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals in covered households confident in computer skills abilities, such as saving downloaded files, opening downloaded files	0%	85%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	and searching for information online						
	Percent of aging individuals confident in knowing what information is safe to share online	84%	86%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of veteran individuals confident in knowing what information is safe to share online	84%	86%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals with disabilities confident in knowing what information is safe to share online	84%	86%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of non-native English speakers confident in knowing what information is safe to share online	91%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of racial or ethnic minorities confident in knowing what information is safe to share online	89%	91%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of rural individuals confident in knowing what information is safe to share online	90%	84%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of formerly incarcerated individuals confident in knowing what information is safe to share online	0%	84%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals in covered households confident in knowing what	0%	84%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	information is safe to share online						

J. Encourage targeted training programs

Barriers and gaps

Survey data and anecdotal accounts from interviews with state agencies, including the Department of Military Affairs, indicates that covered populations, including veterans, rural individuals, and the elderly, may benefit from additional digital skills training to help close the digital divide, which contributes to low rates of broadband adoption.[115]

Non-covered populations are 26 percent more likely to be very comfortable deciphering what information is safe to share online than those 60 and older and at least 16 percent more likely when compared with every other covered population.[116]

While some Montana agencies (e.g., Montana State Library, Montana School for the Deaf and Blind) provide targeted training today, additional funding could allow them to expand to cover specific covered population groups. Current targeted programs are not available to all covered populations. Additionally, new organizations may compete for subgrantee funding and offer new programs with jumpstart funding from the Digital Opportunity Plan.

Activities

Montana could partner with other state agencies (e.g., Montana State Library, Montana School for the Deaf and Blind) to design and deploy new tailored digital skills training programs to meet the needs of covered populations, who could benefit from lessons on fundamental digital skills and computer use. These skills would allow them to access telehealth and other basic services online.

Digital skills training can be delivered at local CAIs, with which targeted populations are familiar and where trust may be easy to establish. It can also be administered by state entity partners who serve various covered populations.

Exhibit 58: Potential targeted digital skills efforts

Existing program

Partner	Covered population	Function
Montana School for the Deaf and Blind	e (students and families)	Provide specialized device training (e.g., software used by individuals with sight, hearing impairments) to students and families
Office of Public Instruction and Department of Labor and Industry	g (Tribal)	HB 644 established a scholarship program, administered by OPI and DLI, to support the development of computer programming courses at high schools located on Native American reservations in the state

[115] Department of Military Affairs, Interview, October 26, 2022
[116] Survey of Montana residents conducted by the MBO Sep-Oct 2022. N=1,622

Partner	Covered population	Function
Montana Public Libraries and Tribal College Libraries	a, b, d, e, f, g, (including Tribal), h	Provide one-on-one support as well as training on digital skills
Department of Public Health and Human Services: State Unit of Aging, health care facilities, rural health providers, and Senior Centers	B	Help seniors learn the basics of how to use internet-capable devices—particularly tablets—and critical services (e.g., telehealth)
Montana Rural Development State Office	H	Develop familiarity with digital devices and establish fundamental skills; enable access to telehealth and emergency services/notifications
Montana Department of Corrections	C	Equip individuals to pursue educational and vocational training; allow them to develop skills that will improve employment opportunities after release
Department of Military Affairs; Veterans Affairs	d	Empower veterans to access critical services, like telehealth or other VA benefits

Key activities include:

- Determine priority covered populations.
- Select state agencies / partners to design and administer training.
- Partner with state agencies / organizations who will create and administer the curricula.
- Record the number of individuals who receive training over time.

Goals and measurements

For each effort, the administering partner or agency may set a target number of individuals to receive training and monitor their progress on an ongoing basis. The partner agencies will report back to the State on progress and the number of covered population individuals who are reached. Additionally, the State will perform a survey of Montana Residents (similar to survey described in section 7.1) to understand how Montana residents' computer skills are increasing or decreasing over time. If the State is not making progress towards its short-term and long-term goals, it will re-evaluate and learn from actions taken to make new plans to successfully hit its goals.

Exhibit 59: Encourage targeted training programs goals and measurements

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
Increase digital literacy and increase the awareness of, and the use of, measures to secure the online privacy of,	Number of individuals in covered populations reached through new or expanded digital skills program	0	500	5,000	Summary from digital skills program subrecipients	Every 12 months	Program Coordinator
	Percent of aging individuals confident in computer skills abilities, such as saving downloaded files,	89%	91%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
and cybersecurity with respect to, an individual	opening downloaded files and searching for information online						
	Percent of veteran individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	91%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals with disabilities confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	87%	89%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of non-native English speakers confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	83%	85%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of racial or ethnic minorities confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	91%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of rural individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	90%	92%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of formerly incarcerated individuals confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	0%	85%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

Objective	KPI	Baseline	Near-term	Long-term	Data source	Tracking frequency	Responsible Entity
	Percent of individuals in covered households confident in computer skills abilities, such as saving downloaded files, opening downloaded files and searching for information online	0%	85%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of aging individuals confident in knowing what information is safe to share online	84%	86%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of veteran individuals confident in knowing what information is safe to share online	84%	86%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals with disabilities confident in knowing what information is safe to share online	84%	86%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of non-native English speakers confident in knowing what information is safe to share online	91%	93%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of racial or ethnic minorities confident in knowing what information is safe to share online	89%	91%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of rural individuals confident in knowing what information is safe to share online	90%	84%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of formerly incarcerated individuals confident in knowing what information is safe to share online	0%	84%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer
	Percent of individuals in covered households confident in knowing what information is safe to share online	0%	84%	99%	Survey of Montana Residents	Every 2 years	Chief Data Officer

5.2 Timeline

For each of the digital opportunity strategies, Montana may pursue the following activities on a five-year timeline in order to align to the timeline laid out in the BEAD program. These key activities give Montana an opportunity to prioritize its initiatives, establish relationships with the ideal partners—including CAIs, state agencies, and ISPs—launch and refine pilot programs, and then scale its efforts to have the greatest impact across the state.

Exhibit 60: Estimated timeline for broadband availability strategies

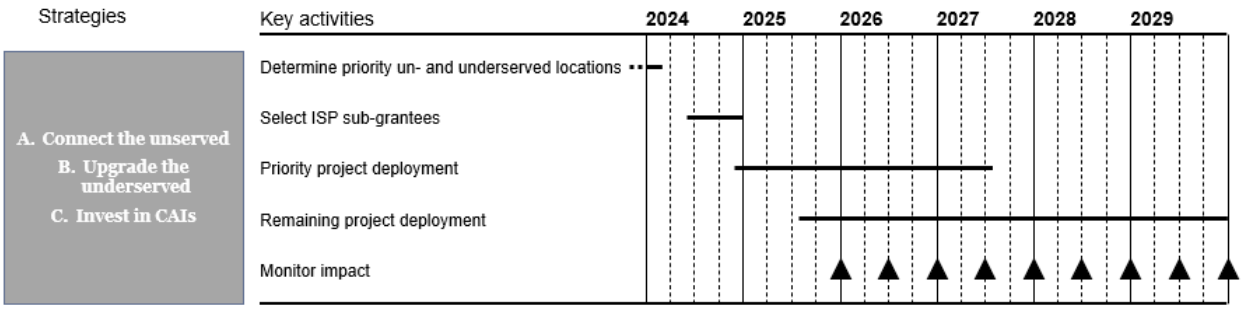


Exhibit 61: Estimated timeline for service affordability strategies

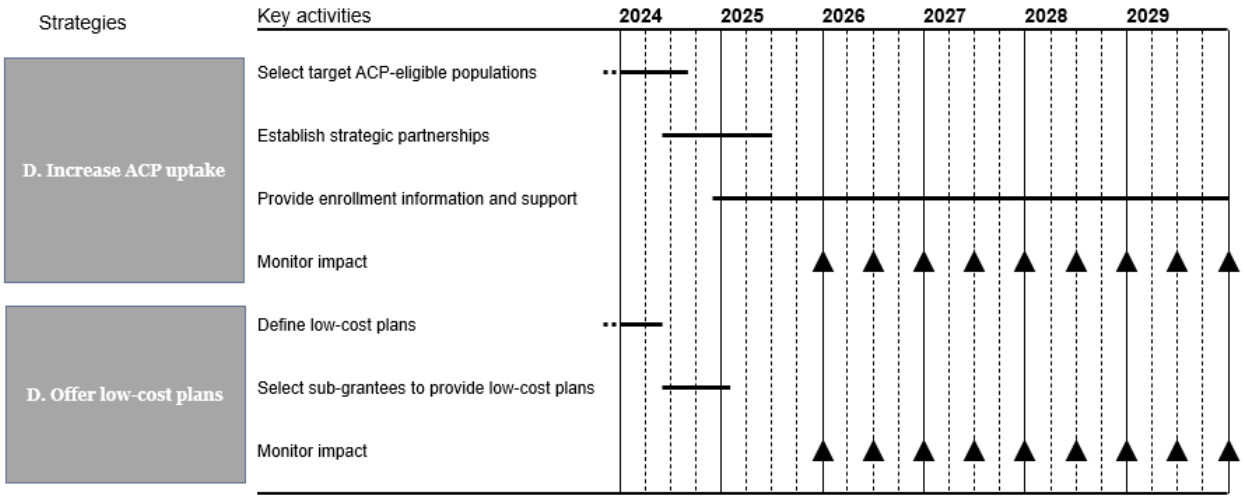


Exhibit 62: Estimated timeline for device access strategies

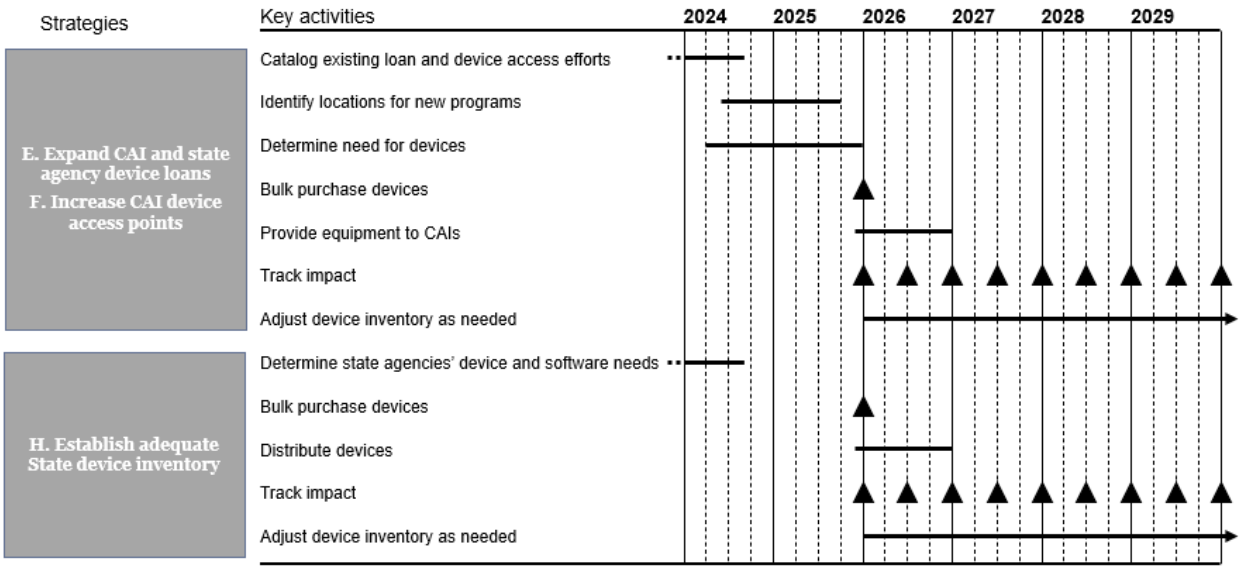
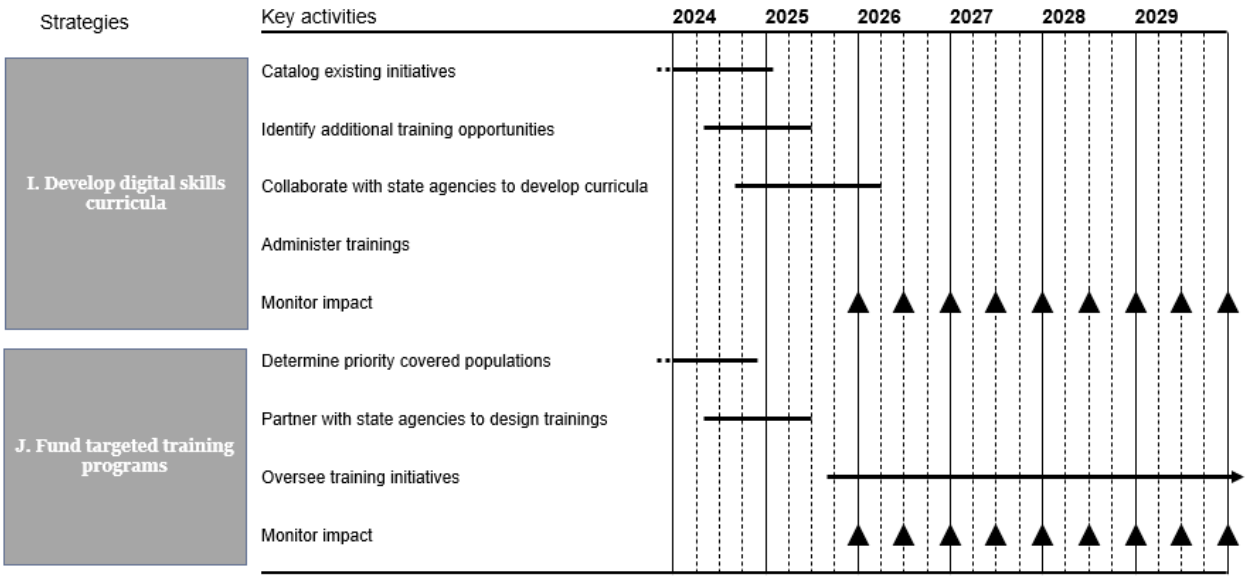


Exhibit 63: Estimated timeline for digital skills strategies



6 Conclusion

Montana recognizes the immense value of high-speed internet in service to citizen and state goals and the considerable challenges the state faces in making adequate, affordable broadband accessible to its residents.

The state has developed a thorough understanding of the barriers to broadband accessibility by conducting research, engaging with key stakeholders, and compiling a digital asset inventory. Through this process, Montana identified the needs and gaps that should be addressed to narrow the state's digital divide.

Montana developed a cohesive set of strategies to increase digital opportunity for all of its residents, with a focus on the needs of the unserved and underserved as well as covered populations and the entities that serve them.

The state's digital opportunity strategies will address four main barriers: broadband availability, service affordability, device access, and digital skills. Through its Digital Opportunity Plan, Montana will encourage broadband adoption and equitable access to the numerous benefits of high-speed internet, closing the digital divide.

7 Appendices

7.1 Stakeholder engagement survey methodology

The MBO developed two surveys for distribution across the state to gather input on how to close the digital divide in Montana. The Montana Internet Access Household Survey was designed for any Montanan over the age of 18, while the Montana Internet Access Community Leader Survey was designed for community groups (such as libraries, public health organizations, religious organizations, and chambers of commerce).

The survey was designed based on similar surveys fielded by other states, such as the North Carolina Broadband Survey and the Kansas Broadband Study. The survey covered the following topics:

- Availability of internet access at home and in the community
- Type of internet access at home, if any (including speeds)
- Reasons for internet use
- Awareness of internet subsidy programs such as ACP
- Reasons for lack of home internet access
- Assessment of affordable monthly price for high-speed home internet

Survey fielding. Both surveys followed the same fielding methodology. The survey was marketed through similar materials as created for the stakeholder engagement sessions. All materials included both a hyperlink to the survey as well as a QR code to enable respondents to access the survey on smartphones. Marketing materials included:

- Flyers for the general public and stakeholder populations
- Press releases
- Social media posts for Twitter, Instagram, and Facebook
- Email messaging tailored to state agencies and stakeholder populations
- Updated state website language

The survey was advertised during all Round 1 stakeholder engagement sessions, encouraging participants to take the survey and share in their communities. As described below in the survey limitations section, the MBO also provided computers during these sessions to allow participants to take the survey.

The survey field period lasted from August 24, 2022 to September 30, 2022 (for a total of five weeks). 1,622 complete responses were received for the Montana Internet Access Household Survey and 83 complete responses were received for the Montana Internet Access Community Leader Survey.

Survey limitations. Given a necessarily short fielding period, a paper survey option was not feasible. To mitigate the lower response rate given a web-only administration, the MBO created a QR link for each survey, to enable respondents with a smartphone to take the survey from a location where they can access the internet. In addition, the team brought computers with the survey to each in-person stakeholder engagement session, to allow participants to take the survey.

7.2 Individual/household survey data tables by survey question[117,118]

There are 1,622 complete responses and no partial responses included in these results. Responses with invalid or missing zip codes were removed from the data.

7.2.1 Survey flow questions

Table 1: Do you have an internet connection at home?

Response	Count	Percent
Yes	1,560	96.2%
No	62	3.8%
TOTAL	1,622	100%

Table 2: Which of the following devices do you or others in your household use to connect to the internet, whether at home or somewhere else? Choose all that apply.

Device	Count[119]	Percent (Total Number of Responses)	Percent (Total Number of Respondents)
Desktop or laptop computer	1,538	31.1%	94.8%
Tablet device	1,184	24.0%	73.0%
Smartphone or cellphone that connects to the internet	1,544	31.3%	95.2%
None of these	7	0.1%	0.4%
E-Readers*	9	0.2%	0.6%
Gaming*	124	2.5%	7.6%
General Internet of Things (IoT) Devices*	17	0.3%	1.0%
Miscellaneous*	8	0.2%	0.5%
Music Devices*	2	0.0%	0.1%
Other Home and Garden Appliances*	19	0.4%	1.2%
Personal Health & Medical Devices*	13	0.3%	0.8%
Security*	24	0.5%	1.5%
Smart Home Devices*	24	0.5%	1.5%
Streaming, TVs*	423	8.6%	26.1%
Unable to Access Internet*	1	0.0%	0.1%
No response/skipped	2	0.0%	0.1%
TOTAL	4,939 (1,622)	100%	N/A

** If responded "Yes" in Table 1, jump to Questions for Only Respondents that Have Home Internet Access, beginning with Table 3. If responded "No" or "I don't know" in Table 1, jump to Questions for Only Respondents that Do Not Have Home Internet Access, beginning with Table 10.*

[117] * Indicates an "other" response, not provided in the list of response options.
[118] The percent columns may not add to 100 due to rounding.
[119] The first number in the total count represents the total number of *responses* and the second number represents the total number of *respondents*.

7.2.2 Questions for only respondents that have home internet access

Table 3: What type of internet access do you have at home?

Internet Type	Count	Percent
Fixed service installed at home, such as cable or fiber-optic service provided by a cable or phone company	622	39.9%
DSL (digital subscriber line)	156	10.0%
Fixed wireless service	339	21.7%
Satellite internet service received through a satellite dish	353	22.6%
Dial-up service	6	0.4%
I don't know	48	3.1%
Hotspot*	18	1.2%
Cellular*	17	1.1%
No response/skipped	1	0.1%
TOTAL	1,560	100%

Table 4: What is your download speed?

Speed	Count	Percent
I don't know	319	20.4%
Slower than 25 Mbps	548	35.1%
Between 25 Mbps and 100 Mbps	450	28.8%
Faster than 100 Mbps	238	15.3%
No response/skipped	5	0.3%
TOTAL	1,560	100%

Table 5: What is your upload speed?

Speed	Count	Percent
I don't know	474	30.4%
Slower than 3 Mbps	311	19.9%
Between 3 Mbps and 20 Mbps	559	35.8%
Faster than 20 Mbps	213	13.7%
No response/skipped	3	0.2%
TOTAL	1,560	100%

Table 6: Why do you not have high-speed internet?
High speed internet is defined as faster than 100 Mbps download speed and 20 Mbps upload speed.

*Question is only shown if respondents select "Slower than 25 Mbps" or "Between 25 Mbps and 100 Mbps" in Table 4 and "Slower than 3 Mbps" or "Between 3 Mbps and 20 Mbps" in Table 5.

Reason	Count	Percent
It is not available in my area	573	73.8%
It is not affordable	130	16.8%
I do not want or need high speed internet	9	1.2%
I don't know	26	3.4%
I do but it's not sufficient or doesn't work well*	22	2.8%
I don't know if it's available*	1	0.1%
Skeptical of Providers/It's a Hassle*	3	0.4%
I already do/thought I did*	7	0.9%
No response/skipped	5	0.6%
TOTAL	776	100%

Table 7: Are you aware of any internet subsidy programs, such as the Affordable Connectivity Program or the Emergency Broadband Benefit, that help cover monthly internet costs for qualifying households?

Response	Count	Percent
No, I am not aware of any programs	1,074	68.8%
Yes, I am aware, but I do not participate in any of these programs	429	27.5%
Yes, I am aware, and I do participate in one of these programs	57	3.7%
TOTAL	1,560	100%

**If responded "No, I am not aware of any programs" or "Yes, I am aware, and I do participate in one of these programs" in Table 7, skip to Table 9.*

Table 8: Why do you not participate in an internet subsidy program like the Affordable Connectivity Program?

Reason	Count	Percent
I am not eligible	343	80.0%
It is too difficult to apply	8	1.9%
My internet service provider does not participate in the program	16	3.7%
I applied and was rejected	4	0.9%
I don't know how to apply	27	6.3%
I don't want/need it*	5	1.2%
I am financially stable and can afford internet service without it*	6	1.4%
I haven't pursued it*	2	0.5%
I am going to apply*	1	0.2%
Internet service isn't expensive*	2	0.5%
I am not sure if I am eligible*	8	1.9%
There is no internet service provider in area*	3	0.7%
Unknown/NA*	2	0.5%
No response/skipped	2	0.5%
TOTAL	429	100%

Table 9: Do you use the internet at any of the following places in your community? Choose all that apply.

Location	Count	Percent (Total Number of Responses)	Percent (Total Number of Respondents)
My place of work	910	37.6%	58.3%
Library	298	12.3%	19.1%
Community center	57	2.4%	3.7%
Coffee shop or other local business	563	23.2%	36.1%
Park	107	4.4%	6.9%
Internet access is not available anywhere in my community	70	2.9%	4.5%
Airport/Travel*	3	0.1%	0.2%
Businesses*	20	0.8%	1.3%
Campgrounds*	4	0.2%	0.3%
Car/Bus*	9	0.4%	0.6%
Church*	11	0.5%	0.7%
Everywhere with internet access*	3	0.1%	0.2%
Family/Friend's house*	7	0.3%	0.4%
Home*	23	0.9%	1.5%
Hospital/Doctor's office*	9	0.4%	0.6%
Local government*	2	0.1%	0.1%
None*	5	0.2%	0.3%
Office*	8	0.3%	0.5%
On my phone*	18	0.7%	1.2%
School*	10	0.4%	0.6%

Location	Count	Percent (Total Number of Responses)	Percent (Total Number of Respondents)
Visitor's center*	2	0.1%	0.1%
No response/skipped	284	11.7%	18.2%
TOTAL	2,423 (1,560)	100%	N/A

7.2.3 Questions for only respondents that do not have home internet access

Table 10: Why do you not have an internet connection at home? Choose all that apply.

Reason	Count	Percent (Total Number of Responses)	Percent (Total Number of Respondents)
Can't afford the cost of an internet connection	26	27.1%	41.9%
Can't afford a computer, tablet, or other device to connect to the internet	2	2.1%	3.2%
Not worth the cost	7	7.3%	11.3%
Can use the internet elsewhere	6	6.3%	9.7%
Internet connection not available in the area	35	36.5%	56.5%
Don't know how to use the internet	1	1.0%	1.6%
Using the internet is too difficult	1	1.0%	1.6%
Don't want or need the internet	0	0.0%	0.0%
Don't have a computer or device to access the internet	1	1.0%	1.6%
Online privacy or cybersecurity concerns	3	3.1%	4.8%
Personal safety concerns	1	1.0%	1.6%
Household moved or is in the process of moving	2	2.1%	3.2%
Century Link is the least expensive option and they do not offer it*	1	1.0%	1.6%
Currently hotspot off phone. Limited local internet available*	1	1.0%	1.6%
Mountainous terrain, the one company that says they provide internet service is consistently less than 2MB download speeds. There is no cellular service either, so a borrowed hotspot from the public library doesn't work either. *	1	1.0%	1.6%
No providers available*	1	1.0%	1.6%
Satellite is only option, too expensive to set up*	1	1.0%	1.6%
Unable to connect to internet*	1	1.0%	1.6%
Unable to find who services this area*	1	1.0%	1.6%
No broadband in my area*	1	1.0%	1.6%
Not good service where we are at*	1	1.0%	1.6%
Only one service provider in the area and have been trying for 3 plus months to get internet installed to no available*	1	1.0%	1.6%
Too spotty and constantly interrupted*	1	1.0%	1.6%
TOTAL	96 (62)	100%	N/A

Table 11: Do you access the internet at any of the following places in your community? Choose all that apply.

Location	Count	Percent (Total Number of Responses)	Percent (Total Number of Respondents)
My place of work	23	25.3%	37.1%
Library	26	28.6%	41.9%
Community center	2	2.2%	3.2%
Coffee shop or other local business	22	24.2%	35.5%
Park	0	0.0%	0.0%
I do not access the internet at any location	5	5.5%	8.1%
Friend/Family*	4	4.4%	6.5%
Hotspot*	6	6.6%	9.7%
I don't know*	1	1.1%	1.6%
Travels out of town*	2	2.2%	3.2%
TOTAL	91 (62)	100%	N/A

7.2.4 Questions for all respondents

Table 12: Why do you or others in your household use the internet? Choose all that apply.

Activity	Count	Percent (Total Number of Responses)	Percent (Total Number of Respondents)
To work	1,218	11.8%	75.1%
To attend classes or complete coursework for kindergarten through high school	341	3.3%	21.0%
To attend classes or complete coursework for higher education (including certification programs and college)	492	4.7%	30.3%
To schedule or attend healthcare appointments, or to get medication	1,120	10.8%	69.1%
Online shopping	1,528	14.7%	94.2%
To access entertainment (such as watching videos)	1,400	13.5%	86.3%
Staying connected with family and friends	1,469	14.2%	90.6%
To access government services (such as the Motor Vehicle Division; burning, fishing, or hunting permits; unemployment benefits; or nutrition assistance programs)	1,327	12.8%	81.8%
Access financial services	1,336	12.9%	82.4%
Additional entertainment*	5	0.0%	0.3%
Business purposes (email, meetings, small businesses) *	18	0.2%	1.1%
Education*	10	0.1%	0.6%
Fitness*	1	0.0%	0.1%
Games*	12	0.1%	0.7%
Health care*	2	0.0%	0.1%
I use the internet for everything*	6	0.1%	0.4%
Meetings*	2	0.0%	0.1%
N/A*	3	0.0%	0.2%
News*	20	0.2%	1.2%
Pay bills*	4	0.0%	0.2%
Phone/keep in contact with friends & family*	7	0.1%	0.4%
Reading*	4	0.0%	0.2%
Research*	17	0.2%	1.0%
Responding to surveys*	2	0.0%	0.1%
Security*	2	0.0%	0.1%
Smart devices*	3	0.0%	0.2%
Streaming services*	4	0.0%	0.2%
TV*	3	0.0%	0.2%
No response/skipped	8	0.1%	0.5%
TOTAL	10,364 (1,622)	100%	N/A

Table 13: How confident are you in your ability to complete the following activities?

Activity	Very confident	Somewhat confident	Not very confident	Not at all confident	No Response /Skipped
Saving downloaded files	1,212 74.7%	310 19.1%	75 4.6%	21 1.3%	4 0.2%
Opening downloaded files	1,221 75.3%	308 19.0%	72 4.4%	13 0.8%	8 0.5%
Searching for information online	1,297 80.0%	272 16.8%	38 2.3%	8 0.5%	7 0.4%
Knowing what information is safe to share online	963 59.4%	494 30.5%	128 7.9%	22 1.4%	15 0.9%

Table 14: How important is it to you to have a local service provider (now or in the future), instead of a large provider that services many states?

Response	Count	Percent
Very important	863	53.2%
Somewhat important	467	28.8%
Not very important	196	12.1%
Not at all important	90	5.5%
No response/skipped	6	0.4%
TOTAL	1,622	100%

Table 15: How much are you or your household willing to pay for reliable high speed internet service in your home?
For example, for at least two or more users to regularly stream high-definition video, use videoconferencing, participate in online gaming, or work from home.

Dollar amount	Count	Percent
Under $10	15	0.9%
$10 - $25	50	3.1%
$26 - $50	339	20.9%
$51 - $75	570	35.1%
$76 - $100	438	27.0%
More than $100	203	12.5%
No response/skipped	7	0.4%
TOTAL	1,622	100%

7.2.5 Demographic questions

Table 16: Do you live on a reservation?

Response	Count	Percent
Yes	89	5.5%
No	1,526	94.1%
No response/skipped	7	0.4%
TOTAL	1,622	100%

Table 17: On which reservation do you live?
**Question is only shown if respondents selected "Yes" in Table 16.*

Reservation	Count	Percent
Blackfeet Tribe of the Blackfeet Reservation	7	7.9%
Chippewa Cree Tribe of the Rocky Boy's Reservation	4	4.5%
Confederated Salish & Kootenai Tribes of the Flathead Reservation	30	33.7%
Crow Tribe of the Crow Reservation	14	15.7%
Fort Belknap Tribes of the Fort Belknap Reservation	14	15.7%
Fort Peck Tribes of the Fort Peck Reservation	19	21.3%
Little Shell Chippewa Tribe	0	0.0%
Northern Cheyenne Tribe of the Northern Cheyenne Reservation	1	1.1%
TOTAL	89	100%

Table 18: Do any of the following historically underserved populations describe you? Choose all that apply.

Population	Count	Percent (Total Number of Responses)	Percent (Total Number of Respondents)
Aged 60 or older	677	34.6%	41.7%
Veteran	251	12.8%	15.5%
Individual with a disability (mental or physical)	182	9.3%	11.2%
Non-native English speaker	23	1.2%	1.4%
Currently Incarcerated	0	0.0%	0.0%
Racial or Ethnic minority (such as Native American, Black, Hispanic, Asian, etc.)	126	6.4%	7.8%
None of these	656	33.5%	40.4%
No response/skipped	41	2.1%	2.5%
TOTAL	1,956 (1,622)	100%	N/A

7.3 Community leader survey data tables by survey question[120,121]

There are 83 complete responses and 11 partial responses included in these results. Responses with invalid or missing zip codes were removed from the data.

7.3.1 Demographic questions

Table 1: Which of the following best describes your community group?

Community Group	Count	Percent
Adult education or literacy organization	3	3.2%
Advocacy group	0	0.0%
Chamber of commerce	6	6.4%
Education organization serving pre-kindergarten through high school students	4	4.3%
Higher education organization	4	4.3%
Internet service provider	13	13.8%
Labor organization	3	3.2%
Local government	30	31.9%
Nonprofit organization	17	18.1%
Public health organization (including health clinics)	2	2.1%
Public library	8	8.5%
Religious or faith-based organization	0	0.0%
Tribal government	0	0.0%
Veterans' association (such as the American Legion)	0	0.0%
Agriculture*	1	1.1%
Economic Development Organization*	1	1.1%
State Government*	2	2.1%
TOTAL	94	100%

Table 2: Is your organization located on or does it serve a reservation?

Response	Count	Percent
Yes	20	21.3%
No	73	77.7%
No response/skipped	1	1.1%
TOTAL	94	100%

**If "No", jump to Table 4.*

Table 3: On which reservation is your organization located or does it serve?

Reservation	Count	Percent
Blackfeet Tribe of the Blackfeet Reservation	1	5.0%
Chippewa Cree Tribe of the Rocky Boy's Reservation	2	10.0%
Confederated Salish & Kootenai Tribes of the Flathead Reservation	4	20.0%
Crow Tribe of the Crow Reservation	0	0.0%
Fort Belknap Tribes of the Fort Belknap Reservation	2	10.0%
Fort Peck Tribes of the Fort Peck Reservation	9	45.0%
Little Shell Chippewa Tribe	0	0.0%
Northern Cheyenne Tribe of the Northern Cheyenne Reservation	2	10.0%
TOTAL	20	100%

[120] An asterisk (*) indicates an "other" response, not provided in the list of response options.
[121] The percent columns may not add to 100 due to rounding.

7.3.2 Questions about the entire community

Table 4: To the best of your knowledge, what percent of residents in the community where your organization is located, or areas your organization serves, have an internet connection at home? Your best guess is fine.

Range	Count	Percent
Less than 10%	0	0.0%
10% - 25%	2	2.1%
26% - 50%	11	11.7%
51% - 75%	41	43.6%
76% - 100%	23	24.5%
I don't know	12	12.8%
No response/skipped	5	5.3%
TOTAL	94	100%

Table 5: To the best of your knowledge, why don't some residents have an internet connection at home? Choose all that apply.

Reasons	Count[122]	Percent (Total Number of Responses)	Percent (Total Number of Eligible Respondents)
Can't afford the cost of an internet connection	71	21.0%	75.5%
Can't afford a computer, tablet, or other device to connect to the internet	49	14.5%	52.1%
Not worth the cost	13	3.8%	13.8%
Can use the internet elsewhere	19	5.6%	20.2%
Internet connection not available in the area	44	13.0%	46.8%
Don't know how to use the internet	26	7.7%	27.7%
Using the internet is too difficult	14	4.1%	14.9%
Don't need or want the internet	29	8.6%	30.9%
Don't have a computer or device to access the internet	41	12.1%	43.6%
Online privacy or cybersecurity concerns	14	4.1%	14.9%
Personal safety concerns	3	0.9%	3.2%
Household moved or is in the process of moving	2	0.6%	2.1%
Internet in this area is poor and has lots of issues*	1	0.3%	1.1%
Larger publicly traded companies have failed to invest in Montana's rural communities*	1	0.3%	1.1%
Over 90% of have internet*	1	0.3%	1.1%
Rural Area*	2	0.6%	2.1%
There is no fiber service to our specific area, we provide a WISP*	1	0.3%	1.1%
No response/skipped	7	2.1%	7.4%
TOTAL	338 (94)	100%	N/A

[122] The first number in the total count represents the total number of *responses* and the second number represents the total number of *respondents*.

Table 6: To the best of your knowledge, what is the most common reason why a resident does not have an internet connection at home?[123]

Reasons	Count[124]	Percent (Total Number of Responses)	Percent (Total Number of Eligible Respondents)
Can't afford the cost of an internet connection	39	28.3%	41.5%
Can't afford a computer, tablet, or other device to connect to the internet	18	13.0%	19.1%
Not worth the cost	5	3.6%	5.3%
Can use the internet elsewhere	5	3.6%	5.3%
Internet connection not available in the area	29	21.0%	30.9%
Don't know how to use the internet	6	4.3%	6.4%
Using the internet is too difficult	1	0.7%	1.1%
Don't need or want the internet	10	7.2%	10.6%
Don't have a computer or device to access the internet	8	5.8%	8.5%
Online privacy or cybersecurity concerns	1	0.7%	1.1%
Personal safety concerns	1	0.7%	1.1%
Household moved or is in the process of moving	1	0.7%	1.1%
Internet in this area is poor and has lots of issues*	1	0.7%	1.1%
Rural area*	2	1.4%	2.1%
Larger publicly traded companies have failed to invest in Montana's rural communities*	1	0.7%	1.1%
No response/skipped	10	7.2%	10.6%
TOTAL	138 (94)	100%	N/A

Table 7: Is internet access available at any of the following places in the community where your organization is located, or the area which your organization serves? Choose all that apply.

Locations	Count[125]	Percent (Total Number of Responses)	Percent (Total Number of Eligible Respondents)
Library	79	40.3%	84.0%
Community center	26	13.3%	27.7%
Coffee shop or other local business	61	31.1%	64.9%
Park	5	2.6%	5.3%
Internet access is not available anywhere in my community	2	1.0%	2.1%
Additional local businesses*	2	1.0%	2.1%
Campgrounds*	2	1.0%	2.1%
Educational center/institution*	8	4.1%	8.5%
Golf course*	1	0.5%	1.1%
Health center*	1	0.5%	1.1%
ISP office*	2	1.0%	2.1%
Non-profit organization*	1	0.5%	1.1%
No response/skipped	6	3.1%	6.4%
TOTAL	196 (94)	100%	N/A

[123] Only responses recorded in **Table 5** were shown to participants.
[124] The first number in the total count represents the total number of *responses* and the second number represents the total number of *respondents*.
[125] The first number in the total count represents the total number of *responses* and the second number represents the total number of *respondents*.

7.3.3 Questions about the organization's members or clients

Table 8: To the best of your knowledge, what percent of your organization's members or clients have an internet connection at home? Your best guess is fine.

Range	Count	Percent
Less than 10%	0	0.0%
10% - 25%	1	1.1%
26% - 50%	11	11.7%
51% - 75%	17	18.1%
76% - 100%	44	46.8%
I don't know	10	10.6%
No response/skipped	11	11.7%
TOTAL	94	100%

Table 9: To the best of your knowledge, why don't some of your organization's members or clients have an internet connection at home? Choose all that apply.

Reasons	Count[126]	Percent (Total Number of Responses)	Percent (Total Number of Eligible Respondents)
Can't afford the cost of an internet connection	39	16.9%	41.5%
Can't afford a computer, tablet, or other device to connect to the internet	27	11.7%	28.7%
Not worth the cost	13	5.6%	13.8%
Can use the internet elsewhere	20	8.7%	21.3%
Internet connection not available in the area	39	16.9%	41.5%
Don't know how to use the internet	10	4.3%	10.6%
Using the internet is too difficult	8	3.5%	8.5%
Don't need or want the internet	18	7.8%	19.2%
Don't have a computer or device to access the internet	24	10.4%	25.5%
Online privacy or cybersecurity concerns	5	2.2%	5.3%
Personal safety concerns	2	0.9%	2.1%
Household moved or is in the process of moving	3	1.3%	3.2%
All members have internet*	2	0.9%	2.1%
Can't be a member without subscribing to service*	1	0.4%	1.1%
Unreliable internet service*	1	0.4%	1.1%
No response/skipped	19	8.2%	20.2%
TOTAL	231 (94)	100%	N/A

[126] The first number in the total count represents the total number of *responses* and the second number represents the total number of *respondents*.

Table 10: To the best of your knowledge, what is the most common reason why some of your organization's members or clients do not have an internet connection at home?[127]

Reasons	Count[128]	Percent (Total Number of Responses)	Percent (Total Number of Eligible Respondents)
Can't afford the cost of an internet connection	26	23.4%	27.7%
Can't afford a computer, tablet, or other device to connect to the internet	8	7.2%	8.5%
Not worth the cost	5	4.5%	5.3%
Can use the internet elsewhere	6	5.4%	6.4%
Internet connection not available in the area	28	25.2%	29.8%
Don't know how to use the internet	2	1.8%	2.1%
Using the internet is too difficult	0	0.0%	0.0%
Don't need or want the internet	4	3.6%	4.3%
Don't have a computer or device to access the internet	7	6.3%	7.4%
Online privacy or cybersecurity concerns	0	0.0%	0.0%
Personal safety concerns	0	0.0%	0.0%
Household moved or is in the process of moving	0	0.0%	0.0%
Can't be a member without subscribing to service*	1	0.9%	1.1%
All members have internet*	1	0.9%	1.1%
No response/skipped	23	20.7%	24.5%
TOTAL	111 (94)	100%	N/A

[127] Only responses recorded in Table 9 were shown to participants.
[128] The first number in the total count represents the total number of *responses* and the second number represents the total number of *respondents*.

7.4 Organizations MBO collaborated with to develop the Plan

The table below contains the full list of organizations MBO collaborated with in developing the Digital Opportunity Plan. Each of these organizations provided varying levels of feedback that were incorporated or considered in Montana's Five-Year Action Plan and / or Digital Opportunity Plan.

Organization/Stakeholder Name	Type of Organization
Aaniih Nakoda College	Tribal College or University
Absarokee Area Merchants Association	Industry Representative or Association (501c6)
Accelerate Montana	Economic Development
Applied Communication	Other
Beaverhead County	County or Municipal Government
Big Timber Library	Community Anchor Institution
Billings Clinic	Health or Telehealth Organization (Direct Service and Policy focus)
Blackfeet Tribal Business Council (BTBC)	Indian Tribe, Alaska Native Entity, or Native Hawaiian Organization
Blackfoot Communications	Other
Broadband MT	Other
Broadwater County	County or Municipal Government
Buffalo Horse Inc.	Other
Busted Knuckle Brewery	Community Anchor Institution
Cascade County	County or Municipal Government
Charter Communications	Other
CHR Solutions, Inc	Other
City of Billings	County or Municipal Government
City of Kalispell	County or Municipal Government
Crow Tribe	Indian Tribe, Alaska Native Entity, or Native Hawaiian Organization
Custer County	County or Municipal Government
Dawson Community College	Institutions of Higher Education
Dawson County	County or Municipal Government
Department of Labor and Industry	Other
District 4 HRDC (Human Resources Development Council)	Economic Development
Family Connections MT	Organization that Represents Covered Populations
Final Mile Broadband, Inc.	Other
Flathead County	County or Municipal Government
Fort Peck Tribes	Indian Tribe, Alaska Native Entity, or Native Hawaiian Organization
Gallatin College	Institutions of Higher Education (if not listed above)
Gildford Colony School	Community Anchor Institution
Glendive Medical Center	Health or Telehealth Organization (Direct Service and Policy focus)
Glendive Public Library	Community Anchor Institution

Organization/Stakeholder Name	Type of Organization
Great Falls College MSU	Institutions of Higher Education (if not listed above)
Great Falls Development Authority	Economic Development
Great Northern Development Corporation	Economic Development
Grizzly Broadband	Other
Honcoop Tech Services	Other
Human Resource Council in Missoula	Nonprofit Organization (501c3)
InterBel Telephone Cooperative	Other
Island Mountain Development Group	Economic Development
Jackson Utilities	Other
Job Service MT	Other
Konceptio Data Services, LLC (KDS Networks)	Other
Laborers Local 1686	Workforce Development Organization
Lincoln County Library	Community Anchor Institution
Little Big Horn College	Tribal College or University
Mid-Rivers Communications	Other
Missoula Aging Services	Organization that Represents Covered Populations
Missoula County	County or Municipal Government
Missoula Economic Partnership	Workforce Development Organization
Montana Community Action Association	Other
Montana Co-Op Development Center	Economic Development
Montana Department of Commerce	Other
Montana Department of Corrections	Organization that Represents Covered Populations
Montana Department of Military Affairs	Other
Montana Department of Transportation	Other
Montana Department of Veterans Affairs	Organization that Represents Covered Populations
Montana Digital Academy	Other
Montana Legal Services Association	Organization that Represents Covered Populations
Montana Office of Public Instruction	Other
Montana Office of the Governor	Other
Montana Public Service Commission	Other
Montana School for the Deaf and Blind	Institutions of Higher Education (if not listed above)
Montana State Library	Community Anchor Institution
Montana Women Vote	Other
MSU - Hill County Extension	Institutions of Higher Education (if not listed above)
Native Inter-Tribal Health Alliance	Indian Tribe, Alaska Native Entity, or Native Hawaiian Organization
Nemont	Other
North Lake County Public Library District	Community Anchor Institution

Organization/Stakeholder Name	Type of Organization
Northern Cheyenne Tribe	Indian Tribe, Alaska Native Entity, or Native Hawaiian Organization
Office of Senator Daines	Other
Office of the Commissioner of Higher Education	Institutions of Higher Education (if not listed above)
Pattee Canyon Landowners Association	Community Anchor Institution
Powell County	County or Municipal Government
Range Companies	Other
Roosevelt County	County or Municipal Government
Siyeh Communications Blackfeet	Other
Southeast Mountain Development Corporation	Economic Development
Southern Montana Telephone	Other
Stillwater County	County or Municipal Government
SURF_HL	Other
TDS Telecom	Other
Thompson-Hickman Library	Community Anchor Institution
Three Rivers Communications	Other
Town of West Yellowstone	County or Municipal Government
TRAILS	Community Anchor Institution
Triangle Communications	Other
Tribal Communications, LLC	Other
Tri-County Telephone	Other
University of Providence	Institutions of Higher Education (if not listed above)
Valley County	County or Municipal Government
Veterans Navigation Network	Organization that Represents Covered Populations
Welcome Back	Organization that Represents Covered Populations
WGM Group	Other

7.5 Public comment response

In the below section, the MBO has responded to all public comments received during the document's open comment period from May 30, 2023, until August 8, 2023.

7.5.1 Anonymous comment received on June 6, 2023

Comment: *May I connect you with our state agency colleagues at the Montana Arts Council? I think they would be an integral piece to implementing goals the Digital Opportunity Plan, especially since they now have media arts (which includes digital literacy, digital technology-based instruction on laptop/tablets/etc.) built into their state arts standards. Also, many of these orgs they have relationships with:*

- *already serve target populations for digital equity*
- *are trusted institutions within communities*
- *and may already have programs/training modules to build on for advancing digital literacy/digital equity (especially in digital media arts/tech/STEAM programs)*

The reason why I ask is because they weren't part of the listening sessions, but definitely would have valuable info to contribute. It also seems they may not be able to submit written feedback on the plan by the June 12 deadline, but perhaps a phone call would make it feel more achievable for them.

I look forward to initiating this relationship!

MBO Response: Thank you for reaching out to connect on the Digital Opportunity Plan. The MBO will consider connecting with the Montana Arts Council during the planning and implementation of the Digital Opportunity Plan to see what existing efforts the Montana Arts Council is pursuing that overlap with the MBO and the State's plans. For now, the MBO has not made any changes to the Digital Opportunity Plan based on this public comment.

7.5.2 Anonymous comment received on June 9, 2023

Comment: *1. Pages 66-69 of the Digital Opportunity Plan talks about CAIs - specifically mentioning libraries and upgrading their infrastructure. It's unclear in the plan what funding source will be used for these upgrades. Our understanding is that the funding for infrastructure should be thru BEAD and DEA funds should focus on adoption, skills and affordability. It would be helpful to clarify how funds will be allocated. How much of DEA funds will be for infrastructure and how much will fund other projects/programs?*

2. Related to upgrading the broadband speeds for CAIs, it might be worthwhile to include a strategy of upgrading internal wiring and wide area network equipment at the CAIs so they can fully utilize faster broadband speeds. We have learned in our own work that some ISPs are providing faster speeds but old equipment and cabling within the libraries is keeping the library from taking advantage of faster speeds.

3. On page 74, thank you for including us in the device/hotspot lending proposal. Community members have praised the hotspot program. Many of them have mentioned not being able to access home broadband services due to lack of infrastructure.

4. On pages 75-76 you go into more detail about the device lending program. While it saves money for the state to purchase items in bulk it might be worth considering a strategy of giving CAIs funding to purchase devices that will work for them at the local level. It gives the CAIs more flexibility in directing the funds towards devices that work best for their community members. Each CAI - not just libraries but other community institutions - is unique and serves different populations. We have found some communities really need laptops while other communities are fine with tablets. It varies enough that it might be wise to give CAIs the ability to use the money for the specific purpose of meeting the device loan goals.

5. On page 76, libraries are not included in Table 46, but they provide computer terminals and tablet and laptops to be used for homework, education, telemedicine, research, connecting with family/friends, and digital skill building.

6. Pages 80-81 talk about digital skills training and the need to reach aging individuals, veterans, and others who may struggle with digital skills. Libraries serve many of these individuals and provide a lot of one-on-one support as well as training. We would like to suggest including public and tribal college libraries as potential partners in exhibit 51.

MBO Response: Thank you so much for your support and writing in to submit public comment. The MBO will address each of your points below:

1. Funding related to broadband infrastructure will be through the BEAD program whereas funding from the Digital Opportunity Plan will be focused on increasing non-deployment programs for covered populations. The MBO refers to availability at CAIs such as libraries across Montana in the Digital Opportunity Plan to highlight that the biggest barrier to individuals adopting and using high-speed internet is availability. In other words, digital literacy, device access and even adoption of high-speed internet only matter after high-speed service is available to an individual.
2. Thank you for this feedback; the comment applies to the BEAD Five-Year Action Plan and will be considered for the Initial Proposal.
3. The MBO is excited to potentially bolster ongoing hotspot programs in the State. No changes to the Plan have been made.
4. Thank you for the consideration. After funding availability is provided by the NTIA, the MBO may launch a competitive subgrantee process in order to best utilize the funds. The MBO will keep this consideration in mind when determining how to choose subgrantees.
5. Thank you for the additional information. The MBO has made changes to the Digital Opportunity Plan to include this information as part of our potential implementation plan.
6. Thank you for the additional information. The MBO has made changes to the Digital Opportunity Plan to include this information as part of our potential implementation plan.

The MBO appreciates your time writing a thoughtful list of questions / comments and hope you will continue to be engaged throughout the Digital Opportunity planning process.

7.5.3 Anonymous comment received on June 12, 2023

Comment: *Attn: Montana Broadband Office*

I am submitting comments on the Digital Equity Plan as an independent consultant who has been working on broadband and digital equity efforts for over 20-years. I am a Past-president of the Rural Telecommunications Congress and have completed over 20 community broadband plans in multiple states including Montana, Colorado, Idaho, and Wisconsin. I authored research reports on broadband issues for the American Planning Association and have presented at state and national conferences on the issue. In 2010, as part of funds received from the American Recovery and Reinvestment Act, I was contracted by the State of Montana to facility 14 regional broadband meetings across the state and the following year I was contracted again to conduct tribal outreach for the state on broadband issues. I have extensive experience in this area and am keenly interested in the Digital Equity Plan being prepared by the State. I attended both rounds of public meetings and participated in the on-line survey.

With this background, I believe that a key to successful implementation will be ongoing engagement of stakeholders – especially community groups and representation from covered population. Indeed, this is a requirement of the NOFO, (see below)

4. In order to achieve the measurable objectives identified in item 2 of this Section IV.C.1.b.i, a description of how the State plans to collaborate with key stakeholders in the State, (pg. 20)

4. To the extent not addressed in connection with item 4 of Section IV.C.1.b.i, a coordination and outreach strategy, including opportunities for public comment by, collaboration with, and

ongoing engagement with representatives of each category of covered populations within the State and with the full range of stakeholders within the State; (pg. 21)

In reviewing Section 5 of the Digital Equity Plan, I did not see any specific implementation measures that meet the requirement of the Notice of Funding Opportunity for "ongoing engagement". The plan should include robust strategies to collaborate, communicate and engage a wider range of stakeholders as noted in the NOFO. Section 2 of the Montana Digital Equity Plan describes the role of the Montana Broadband Office and other state departments in implementing the plan. It does not include descriptions of collaborations with stakeholder groups. A possibility to achieve true representation of "covered populations' would be to form an Advisory Committee with representation from these groups. I strongly urge that Section 5 of the draft plan include a specific section regarding on-going stakeholder involvement, including consultation with an Advisory Committee of community members representing stakeholder groups identified in the NOFO.

Thank you for your consideration of these comments.

MBO Response: Thank you for taking the time and providing your feedback and expertise. The MBO has added a section on stakeholder involvement at the end of Section 4 *Stakeholder*

outreach. Additionally, the MBO has included additional information regarding a potential competitive subgrantee process to award Digital Opportunity Plan funds to organizations to support implementation of initiatives. Collaboration with organizations who participate in the subgrantee process (if utilized) will be able to have their voices heard through their support in implementation.

7.5.4 Anonymous comment received on June 16, 2023

Comment*: On behalf of our client KDS Networks and their President and CEO Robert Bialecki, we respectfully submit the following comments with respect to the State of Montana BEAD/DE Plans.*

Comment:

Having reviewed the Broadband Equity, Access & Deployment Program (BEAD/DE) Plans KDS Networks offers the following observations, comments and recommendations for the Advisory Commission's consideration.

• As an applicant who previously submitted a proposal under the prior Connect MY Broadband Grant Program, but who was not part of the final selection process which awarded funding to their project, KDS has continues to develop, deploy and deliver broadband network service to the addresses identified in their original proposal, following the announcement of the awards In addition KDS Networks has continued to deploy fiber connectivity to addresses identified on the State of Montana Broadband Coverage Map under the Connect MT Broadband Program which have been designated as with unserved or underserved. As KDS as a company has made significant investment in expanding broadband network services in the areas under their initial proposal without the assistance of the grant funding, we recommend that the efforts of companies like KDS should be recognized and a plan for reimbursement for the costs of the deployment in these underserved or unserved areas should be considered by the advisory commission. Funding for this process could be allocated through the Broadband Equity, Access & Deployment Program (BEAD/DE) grant award.

• If the investment in Broadband networks is concerned with the potential for ""over-building"", this support of existing providers and their current development and deployment of critical broadband services will help ensure that over-building is minimized.

• Acknowledgement of the existing commitment of local providers like KDS Networks in furthering the development of critical broadband services in rural communities encourages future development from these companies and protects the individual investment which they have already made.

MBO Response: Thank you for taking the time to leave a comment and MBO appreciates KDS initiatives in broadband expansion. Per Digital Opportunity Plan guidelines, funds cannot be used for infrastructure purposes. BEAD funding can be accessed through participating in the competitive subgrantee process laid out in the Initial Proposal.

7.5.5 Anonymous comment received on June 14, 2023

Comment: *(BEAD 5-year Plan and DE Plan) Sometimes the 5-year plan uses 150% of poverty – and sometimes 200% (inconsistent)*

MBO Response: The MBO appreciates your comment. The 150% of an amount equal to the poverty level is used per NTIA guidance to define "covered households" (and determined by using criteria of poverty established by the Bureau of the Census), and 200% determines eligibility for ACP. Because of this distinction, changes have not been made to the Digital Opportunity Plan.

7.5.6 Anonymous comment received on June 14, 2023

Comment: *(DE Plan) The CAIs in the DE plan seem more oriented around state agencies than what seems to me like more appropriate CAIs: health care facilities, local libraries, etc.*

MBO Response: Thank you for your comment on the Digital Opportunity Plan. There are existing CAIs listed in section 5.1.C *Gaps and Barriers* that include locations beyond state agencies. Further identification of CAIs are detailed in Montana's Initial Proposal Volume I.

7.5.7 Anonymous comment received on June 14, 2023

Comment: *(BEAD and DE Plans). "Consultation" with tribes, unions, etc. seems difficult to understand: what does it mean?*

MBO Response: Thank you for your question. Consultation with tribes, unions, etc. refers to in-person engagement, virtual sessions, and surveys that were deployed in the development of this plan. At this time, there have not been changes to this language. However, the Initial Proposal provides additional context related to official Tribal Consultations regarding BEAD and Digital Opportunity planning and can be referenced for additional information.

7.5.8 Anonymous comment received on June 14, 2023

Comment: *(DE Plan) p. 64. Under "barriers and gaps," I think this is inaccurate – or at least not clear. The % of unserved areas in Montana is not mainly due to challenging terrain – it is primarily due to large distances and the rural nature (low density) of potential broadband locations (residential/ businesses) in Montana.*

MBO Response: Thank you for bringing up this point. The MBO has clarifiedthe language to accurately reflect the low population density to be a primary factor.

7.5.9 Anonymous comment received on June 14, 2023

Comment: *(DE Plan) p. 67. It states that many CAIs are unserved or underserved. Is there any documentation on that statement?*

MBO Response: Thank you for your question. The MBO has updated the Digital Opportunity Plan to include a data point and its respective documentation for the statement on unserved or underserved CAIs in Section 5.1.C.

7.5.10 Anonymous comment received on June 14, 2023

Comment: *(DE Plan) p. 67. What does "entity boundary locations" mean?*

MBO Response: The MBO appreciates the question and has added examples of "entity boundary locations" (e.g., college campuses, military bases, and prisons) in Section 5.1.C for clarification.

7.5.11 Anonymous comment received on June 14, 2023

Comment: *(DE Plan) Is there any way to adapt education programs that can be used in Montana from other states? It seems like units on how to access telehealth, or how to get started using the internet, could be adapted from elsewhere – and would be a higher quality than if Montana tried to develop its own education programs.*

MBO Response: The MBO appreciates your input on adapting education programs from existing content across the country. This has been updated in Section 5.1.I *Barriers and Gaps*.

7.5.12 Anonymous comment received on June 14, 2023

Comment: *(DE Plan) this plan seems to rely on state agencies a lot, which seems like an additional burden on those agencies. Relying on entities like libraries, health care facilities, etc. makes more sense to me.*

MBO Response: Thank you for sharing your input on the Digital Opportunity Plan. The MBO has taken this into consideration and will have further discussion on whether to offer competitive subgrants or work primarily with state agencies. At this time, there have not been updates to the plan in regard to this comment.

7.5.13 Anonymous comment received on June 14, 2023

Comment: *I do not think DPHHS makes sense to use to figure out telehealth. That information should come from health care facilities and rural medical providers.*

MBO Response: Thank you for taking the time to share this input. The MBO has integrated this feedback in Section 5.1.J in the table showing "Potential targeted digital skills efforts" to add health care facilities and rural medical providers.

7.5.14 Anonymous comment received on June 14, 2023

Comment: *Libraries could be available for ongoing training – because libraries already are set up in many counties – and they are a recognized anchor institution. If library staff get digital training, they seem like they would be a great network to provide education to rural areas. I assume all trainers would have access to on-line training units.*

MBO Response: Thank you for taking the time to share this idea. The MBO has added this to Section 5.1.J in the table showing "Potential targeted digital skills efforts".

7.5.15 Anonymous comment received on June 14, 2023

Comment: *Senior Centers could offer continuing education classes – and reach more individuals than DPHHS.*

MBO Response: The MBO appreciates this idea of offering education classes at senior centers. The "Develop digital skills curricula goals and measurements" table of Section 5.1.J to has been updated to include this idea.

7.5.16 Anonymous comment received on June 14, 2023

Comment: *(DE Plan) It seems like in addition to renting out devices, there may be the need to buy in bulk and offer at cost (or subsidized). If an individual needs a device for telehealth, it seems like they would want to own the device…because if they have a different device for each appointment, that could become a barrier to telehealth access.*

MBO Response: Thank you for making a public comment on the Digital Opportunity Plan. The MBO has taken your point into consideration and plans to further discuss how to address this barrier once more information is available from NTIA regarding the Digital Opportunity Program guidelines.

7.5.17 Anonymous comment received on June 14, 2023

Comment: *(DE Plan) Could ISPs be a source for devices?*

MBO Response: The MBO appreciates the feedback regarding ISPs as potential sources of devices. ISPs have been added to the list of device loaning programs and in the "Potential Montana device loaning partnerships and programs" exhibit within Section 5.1.F.

7.5.18 Anonymous comment received on June 14, 2023

Comment: *Libraries are doing their own Digital Equity Plans. They have surveys on the internet availability of each library in Montana. State Library (Jennie Stapp) is coordinating.*

MBO Response: Thank you for taking the time to provide a public comment on Montana's Digital Opportunity Plan. The MBO will engage with the Montana State Library as it further refines its plans and prepares for implementation of the Digital Opportunity Program.

7.5.19 Anonymous comment received on June 14, 2023

Comment: *Libraries in their comments submitted to the committee, talk about that in at least several instances, the ISPs have high speed internet to the outside of the library, but the internal wiring prevents the library from offering high speed internet to patrons.*

MBO Response: Thank you for taking the time to submit feedback on the Montana Digital Opportunity Plan. The MBO has added language with this information in Section 5.1.C *Barriers and gaps*.

7.5.20 Anonymous comment received on June 15, 2023

Comment: *Good afternoon, I am the Associate Director of Broadband Access at Benefits Data Trust (BDT), a national nonprofit that works to improve access to public benefits. BDT recently launched an effort to increase uptake of the Affordable Connectivity Program (ACP) by informing likely eligible households through our contact centers in seven states. We are looking for ways to expand this effort by partnering with state and local broadband offices to drive awareness and enrollment in the ACP. As you are a key broadband stakeholder in Montana, we would love to get your perspective on how the ACP has (or hasn't) helped narrow the digital divide in your state. Specifically, we would love to learn from you:*

• *What is Montana doing to improve broadband affordability and digital equity?*

• *Are low-income consumers in your state able to easily apply for the ACP?*

• *Has your office coordinated with state SNAP and Medicaid administrators to identify potentially eligible consumers for the ACP?*

• *What challenges does your office face and where do you need more resources?*

This will likely be a critical year for the ACP, and we would really value your insight as we develop strategies for increasing awareness and streamlining eligibility in the program.

Thank you for your time and I hope to hear from you soon.

MBO Response: The MBO appreciates you taking the time to write a public comment and ask questions about the Digital Opportunity Plan. Section 5.1 outlines the initiatives the MBO plans to take to improve broadband affordability and digital equity, to achieve the goals for those categories in Section 2.1. Section 5.1.D describes the key activities that the State will take to increase ACP enrollment, including partnerships with non-governmental organizations and state agencies.

7.5.21 Anonymous comment received on June 16, 2023

Comment: "*One key requirement of state digital equity plans is that they include each state's vision of digital equity. The National Telecommunications and Information Administration (NTIA) suggests that digital equity plans address at least these two questions:*

1. What will digital equity look like in the context of your state?

2. What are the broad goals that should be accomplished in executing this plan (e.g., improve rural health outcomes, increase underrepresented youth employment in technology-related fields)?

NTIA has specifically advised states to "lead with equity," intentionally identifying, amplifying, and centering the voices of those most affected by the digital divide and disconnected communities.

With the extraordinary task and responsibility of state policymakers and local communities in mind, the Benton Institute for Broadband & Society launched the Visions of Digital Equity project to aid both in ensuring that more community voices are heard in crafting visions that increase opportunity for all.

Through surveys, community meetings, interviews, conversations, and a collaborative writing process with community contributors, we have arrived at a set of principles to help guide both the process and the resulting visions of digital equity.

We learned that a well-crafted vision of digital equity has the potential to be very powerful. It can:

- *Offer a glimpse of a state transformed by universal connectivity,*
- *Provide a roadmap and resources for the digital inclusion efforts to come, and*
- *Act as a north star for goal setting, planning, and implementation efforts over the months and years to come.*

The best visions of digital equity will be community centered and focused on creating change, specific and clearly articulated, and ambitious but attainable.

In the attached document, the Benton Institute for Broadband & Society shares 11 Principles for Digital Equity Visions, organized around five themes. We hope these principles help the people of Montana evaluate both Montana's Digital Opportunity Plan and the Montana Broadband Office's revision of the plan.

I am happy to answer any question about the Benton Institute's Visions of Digital Equity project and our Principles for Digital Equity Visions. (Please See Document: Principles-DE-Visions.pdf)

MBO Response: Thank you for taking the time to comment on Montana's Digital Opportunity Plan. The MBO appreciates this information and will take it into consideration during the implementation phase of the program. At this time, there have been no changes made to this plan.

7.5.22 Anonymous comment received on August 8, 2023

Comment: *DO Memo in shared files*

MBO Response: The memo is from Montana State Library, describing their commitment to digital equity. The library is committed to providing equitable access to library resources and improving digital skills through various library programs. The Montana State Library advocates for prioritized broadband improvement and digital literacy training. The MBO appreciates the support expressed in the memo and has integrated the Montana State Library in the Digital Opportunity Plan as a key resource for implementation.

7.5.23 Anonymous comment received on August 8, 2023

Comment: *5.I.A: pg. 61: Goals and Measurement*

I would like the state to have an independent process for validating success. ISPs should not be the sole reporter on delivering internet to the unserved. Especially since the currently underserved users are likely to fall into a demographic that is less likely to report issues with their internet.

5.I.B pg. 62: key Activities Include: Select ISPs sub-grantees to build necessary infrastructure.

This suggests that ISPs are the sole entity the can receive funds under the BEAD program. It seems that BEAD program is silent on fund recipients and that the BEAD program favors partnerships between local government, entities and ISPs in successful implementation. It would be beneficial for this language to reflect that.

MBO Response: The MBO appreciates you taking the time to write a public comment and ask questions about the Digital Opportunity Plan. The BEAD program will be focused on delivering internet to the unserved. For additional information, please refer to Montana's BEAD Five-Year Action Plan and Initial Proposal. This Digital Opportunity Plan is focused on other barriers to adoption of internet beyond availability.